

Heritage and Culture as Identity of Communities in North Cyprus: Adaptive Reuse of Industrial Heritage

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ABSTRACT

Culture and heritage are intricately linked forces that influence and shape the identity of the community over generations. As communities develop distinct cultural practices and traditions, their heritage can be seen as an entity with the wealth of collective identity. It is not only a representing the past but also lives in the cultural practices today. This relationship advances development by combining the influences of the past on the present. As communities modernization and socio-economic transformation, developmental elements that were previously important inevitably lose their functionality as community needs. Industrial infrastructures are perhaps the best example of this, as technological development and changing economic patterns outdate a previously thriving industrial site. Many workplaces and entertainment areas which once served as the heart of community life in Northern Cyprus, either have ceased to serve their essential functions or are in the process of being renovated and remodeled. These places are believed to carry significant cultural, historical, and architectural importance to the communities in which they were developed. As it can be followed, efforts to preserve these facilities as important industrial heritage objects began systematically in the 1970s throughout the world. The International Council on Monuments and Sites (ICOMOS) played an essential role in stressing the importance of industrial heritage and establishing frameworks for such sites to be regarded as part of cultural heritage that deserves protection. In such cases, adaptive reuse is a particularly valuable option and a serious approach, which facilitates the considered re-use of historic industrial buildings for contemporary purposes whilst consciously keeping intact their structure, character and historicity. This approach allows heritage sites to become part of the contemporary life of the community in a way that respects

their significance and responds to past and present community needs, thus protecting cultural heritage in a way that creates benefits in the economic, social and environmental spheres. The main case study of the research is The Cyprus Mines Corporation (CMC) Mining Load Deck located in Lefke. This is a former industrial site that is no longer operational but from today's perspective, it had high architectural and cultural value and potential. The aim of this research is to analyse the adaptive reuse potential of the site and how such a reuse of industrial heritage can further the sustainability goals of Lefke and the surrounding region. The study will bring in different disciplines ranging from architectural assessment, historical evaluation, community involvement, economic feasibility studies, and environmental impact assessment.

Keywords: heritage, culture, identity, industrial heritage, adaptive reuse.

ÖZ

Kültür ve miras, nesiller boyunca topluluğun kimliğini etkileyen ve şekillendiren karmaşık bir şekilde bağlı unsurlardır. Toplumlar kendilerine özgü kültürel uygulamalar ve gelenekler geliştirdikçe, mirasları kolektif kimliğin zenginliğiyle dolu bir depo olarak görülebilir. Sadece geçmişin bir deposu değil, aynı zamanda bugün kültürel uygulamalarımızda da yaşamaktadır. Bu ilişki, geçmişin bugünkü etkisini (pratik) bugünkü temele dayalı olarak geçmişi düzeltmekle (değer) birleştirerek evrimi iletir. Toplumlar modernleşme ve sosyo-ekonomik dönüşüm geçirirken, daha önce önemli olan gelişim unsurları kaçınılmaz olarak topluluk ihtiyaçları doğrultusunda işlevselliğini yitirir. Endüstriyel altyapılar belki de bunun en iyi örneğidir, çünkü teknolojik gelişmeler ve değişen ekonomik kalıplar, daha önce canlı olan bir endüstriyel alanı geçersiz kılar. Kuzey Kıbrıs'ta bir zamanlar toplumsal yaşamın kalbi olan birçok iş yeri ve eğlence alanı, ya temel işlevlerini yerine getirmeyi bırakmış ya da yenilenme ve yeniden düzenlenme sürecindedir. Bu yerlerin, geliştirildikleri topluluklar için büyük kültürel, tarihi ve mimari öneme sahip olduğuna inanılmaktadır. Bu anıtları önemli sanayi mirası nesneleri olarak koruma çabaları, 1970'lerde dünya genelinde sistematik olarak başladı. Uluslararası Anıtlar ve Sitler Konseyi (ICOMOS), endüstriyel mirasın önemini vurgulamak ve bu tür yerlerin korunmaya değer kültürel mirasın bir parçası olarak kabul edilmesi için çerçeveler oluşturmakta önemli bir rol oynamaktadır. Uyarlamalı yeniden kullanım, tarihi endüstriyel binaların yapısını, karakterini ve tarihsel değerini bilinçli olarak korurken, çağdaş amaçlar için dikkatli bir şekilde yeniden kullanılmasını kolaylaştıran ciddi bir yaklaşım olan özellikle değerli bir seçenektir. Bu yaklaşım, miras alanlarının önemine saygı göstererek ve geçmiş ile günümüz topluluk ihtiyaçlarına yanıt vererek, topluluğun çağdaş yaşamının

bir parçası haline gelmesini sağlar ve böylece kültürel mirası ekonomik, sosyal ve çevresel alanlarda faydalar yaratacak şekilde korur. Kuzey Kıbrıs'ın kültürüne, tarihine ve topluluklarına detaylı bir bakışla, bu çalışma sürdürülebilir kalkınmada endüstriyel miras ve uyarlamalı yeniden kullanımın kapsamını inceliyor. Lefke'de bulunan Kıbrıs Madenleri Şirketi (CMC) Madencilik Yükleme Alanı, projenin ana vaka çalışmasıdır. Bu, artık faaliyette olmayan ancak yüksek mimari ve kültürel değere sahip olan eski bir endüstriyel alandır. Bu araştırmanın amacı, alanın yeniden işlevlendirme potansiyelini analiz etmek ve böyle bir yeniden kullanımın Lefke ve çevresinin sürdürülebilirlik hedeflerini nasıl ilerletebileceğini incelemektir. Çalışma, mimari değerlendirme, tarihsel değerlendirme, topluluk katılımı, ekonomik fizibilite çalışmaları ve çevresel etki değerlendirmesi gibi farklı disiplinleri bir araya getirecektir..

Anahtar Kelimeler: miras, kültür, toplum kimliği, endüstriyel miras, yeniden kullanım.

I dedicate this thesis to my family, whose unwavering support and encouragement have guided me throughout my academic journey.

To the people of North Cyprus, whose cultural and historical heritage has been my inspiration, I dedicate this work as a small contribution to the preservation of our collective memory and identity.

May this research serve not only as an academic study, but also as a step toward valuing, protecting, and reactivating the heritage that shapes our communities and future generations.

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LIST OF ABBREVIATIONS

CMC	Cyprus Mining Cooperation
ICOMOS	International Council on Monuments and Sites
IH	Industrial Heritage
TICCIH	The International Committee for the Conservation of the Industrial Heritage
TRNC	Turkish Republic of Northern Cyprus
UN	United Nations
UNESCO	United Nations Educational, Scientific and Cultural Organization
UV	Ultraviolet

Chapter 1

INTRODUCTION

1.1 Background of the Research

Due to its rich history and coordination of different cultural traditions, Cyprus is uniquely shaped by both places and people, culture and identity. This sense of identity could enhance the adaptive reuse of industrial heritage sites in Cyprus and foster sustainable development. Industrial heritage sites include, but are not limited to, abandoned factories, warehouses, mines and many other varieties of these industrial structures that are presently not in use and neglected are usually abandoned but have industrial heritage significance. Certainly, they can also be reuse into cultural heritage sites, creative hubs, etc. According to many sources and scholars, heritage is the collective term for the significant places, objects and landscapes that ensemble the cultural heritage of both a community and the state. When adapting a space for reuse, it is essential to reflect on how a building or site expresses and produces cultural and contextual significance, as well as what this would mean for the new interventions and uses. The term identity is quite complicated—it can refer to individual and collective sense of self that a building or site embodies. In order to further characterize the actual meaning regarding adaptive reuse, “identity” presents the new uses and meanings which a building or site takes on, as well as the ways in which it continues to reflect its original use or context. Adaptive reuse of industrial heritage brings several challenges, and opportunities especially considering the authenticity and identity. It is sometimes difficult to preserve original materials and features when technologies and

uses change. On the other hand, reuse can help save and enhance historical site of different value that might disappear so the thesis is structured to follows: The literature on heritage, community identity of Cyprus, and adaptive reuse of industrial heritage sites. It is reviewed then and compared by the existing environment to understand the gaps certain findings of the study are presented, and the proposal for adaptive reuse of industrial heritage site in Lefke for promoting community identity and acceptance of the site by community is discussed. Finally, the thesis concludes with recommendations for future research and implications.

1.2 Problem Statement

The re-use of industrial heritage buildings in North Cyprus offers the potential to support various sustainable development aims, to conserve important cultural heritage and to strengthen the identity and sense of belonging of local communities. Though there are benefits for the same. However, it poses a number of issues. One of the most important problems is the lack of understanding and awareness among local stakeholders of the value of industrial heritage. Many of these sites are abandoned and there is a hesitation to invest in their adaptive reuse. In our example of CMC Mine Loading Deck in Lefke near to the ancient city of Soli, the site isn't accepted as a heritage and a part of the community identity.

1.3 Aims and Objectives of the Research

The aims of this research is to examine how communities can accept a site as their own heritage and suggest the adaptive reuse of industrial heritage to create new cultural and economic opportunities for local communities while preserving their cultural heritage. The study concludes that the preservation and adaptive reuse of industrial heritage can be an effective strategy to enhance the cultural identity of

communities and promote development with the proposed adaptive reuse of selected case.

The objectives of this research are threefold:

1. To conduct a comprehensive literature review on the relationship between culture, heritage, and community identity, with a focus on industrial heritage and adaptive reuse.
2. To analyze the historical significance, current condition, and potential of the CMC Mining Load Deck in Lefke.
3. To create and propose a conceptual idea for making the site reusable considering its economic, social (community) and environmental benefits.

1.4 Research Method

Employing the qualitative, historical, and comparative methods, this research examines the rehabilitation of industrial heritage for the purpose of strengthening the cultural identity of North Cyprus, focusing on the Cyprus Mines Corporation (CMC) Mine Loading Deck in Lefke as a case study. The cultural, spatial, and social features of heritage conservation and community identity make them suitable methods.

Transforming the industrial heritage of North Cyprus into cultural hubs and affecting the culture and identity of the communities requires preserving the site and the building but making technically efficient for adaptive re-use. In order to undertake research and proposal, several research methods will be employed to realize the objective of the project.

This research utilizes qualitative, historical, and comparative methodology for a comprehensive, contextual, and interdisciplinary analysis. With the research the CMC

site's past and present is understood; the community's vision for the future of the site is engaged; and the proposed interventions tested models of adaptive reuse. In this way, the research intends to make a meaningful contribution to the conversation on heritage conservation, community identity and sustainable development in post-industrial situations.

The qualitative research approach is the foundation of the study. This allows for looking into subjective experiences, cultural meanings and architectural values. Data collection methods can include site observations. The understanding of social acceptance of the site, perceived heritage value, local communities' needs and aspirations from potential reuse, etc., can be gauged through these tools. Qualitative approaches assist the interpretative analysis of place, identity, and transformation, which are the key themes in adaptive reuse and heritage discourse.

To add to this, a historical research approach was used to document and analyze the evolution of CMC site from the early 20th century to when it was operational to when it was abandoned. Archival research was done using historical documents, photographs, architectural plans and mining documents in order to reconstruct the site and to gain an understanding of its significance in the socio-economic development of Lefke. This historical grounding is important as it allows context to be provided to the site with respect to industrialization in North Cyprus. Its entry to the tangible and intangible heritage of the region can also be established.

In addition, the successful examples of both regional and international context were evaluated to study adaptive reuse through a comparative case study method. Two interesting and valuable projects are represented: the reuse of the Santralistanbul

Energy Museum in Türkiye and the Carob Warehouses in North Cyprus. These cases offers valuable insights on intervention strategies, community involvement, sustainability principles, and design integration. By comparing several design proposals with actual projects, the best practices were identified and the adaptive reuse proposal for the CMC Loading Deck was developed according to local and global scales.

1.5 Limitations

This research investigation on the adaptive reuse of industrial heritage in North Cyprus is limited in many ways. These limitations may restrict the potential that the research could demonstrate.

One important methodological limitation is the focus of the study on only one case, the CMC Mine Loading Deck in Lefke. Although this technique enables the in-depth examination of the characteristics of the site and possibility for adaptive reuse, it does not allow for the generalization of the findings on other industrial heritage sites of North Cyprus or similar globally. A comparative analysis of several sites would have provided broader insights on adaptive reuse. Moreover, the field studies, interviews of stakeholders, and archival study would be limited by the availability and reliability of records and the subjectivity of the stakeholder feedback.

Lefke's unique historical, cultural, and environmental context limits findings to the area itself. The relationship between industrial and ancient heritage at the site and the socio-political situation of North Cyprus are not exactly the same as in other contexts. A potential limitation of the proposed adaptive reuse strategies. The condition of the

CMC site that has deteriorated and with contamination so it has not been possible to conduct more analyses on-site.

The research is also affected by possible budget and time constraints. In particular, it was not possible to undertake extensive community engagement activities and a broader survey that could have provided further insight into local perceptions about the site's heritage value. In the same way, the absence of funding options restrained detailed economic modelling for adaptive reuse project. The involvement of a wide range of stakeholders such as the government, heritage, authorities, local communities, and others is difficult to achieve. It is mainly due to their different priorities and know-how on industrial heritage conservation. This suggests that more efforts should be given on creating an agreement between the stakeholders so to successfully implement adaptive reuse projects.

As a result of environmental degradation and contamination issues at the CMC Mine Loading Deck, many usual and default measuring actions could not be applied. Despite recognizing these shortfalls, the lack of expertise in the field of environmental engineering makes it unfeasible to judge the site feasibility for restoration. Moreover, the dearth of access to advanced equipment and tools has hindered the inclusion of technological aspects of adaptive reuse, such as energy-efficient installations and digital tools for heritage interpretation. There is a possibility of conducting further research in interdisciplinary areas.

The thesis fails to discuss the broader implications of adaptive reuse for regional policy and heritage conservation frameworks. Even though the study offers a case-by-case recommendation, there is a need for future studies which can focus on how projects

like these can help us formulate policies and add to the discourse on industrial heritage. The study has revealed the impact of adaptive reuse of industrial heritage that has been abandoned. However, involved challenges are inspiring, because overcoming these limitations in future studies, would enhance strategies for adaptive reuse and subsequently extend their applicability in other contexts.

Chapter 2

LITERATURE REVIEW

Heritage and culture are representers of cultural practices and provide connection to the past. Heritages are influenced by culture and in the process of time culture is influenced by heritages while shaping historical legacies, contemporary identities, and norms.

The term “heritage” refers to the tradition of actual ancient rarities and intangible properties acquired from past ages, kept up within the present, and for the benefit of future generations (UNESCO, 1972; Lowenthal, 1998). It envelops a wide range of components that by and large address the historical, cultural, and social texture of a community or society (Graham, Ashworth, & Tunbridge, 2000). We can divide heritage into two: tangible and intangible. Tangible heritage refers to physical historical objects and areas with significant background. These can be monuments and buildings. Architectural, and historical buildings and landmarks can be included if they have cultural, aesthetic, or historical significance (Smith, 2006; ICOMOS, 2002). Tangible heritage includes "monuments, groups of buildings, and sites which are of value from the point of view of history, art, or science." (ICOMOS,2002). Artifacts such as tools, clothes, artworks, writings, etc. with cultural value can be included to tangible heritage as well. Sites and landscapes that are witnessed in historical events, landscapes, and archeological sites made by human activities can be considered as a part of the cultural and natural heritage of humanity (UNESCO, 1972). To understand

Intangible heritage it's possible to analyze three parts of the intangible heritage which are; Traditions and customs, oral traditions, and performing arts. Traditions and customs include practices, expressions, knowledge, and skills that society accepts and recognizes as their cultural heritage. According to UNESCO (2003) "the practices, representations, expressions, knowledge, skills – as well as the instruments, objects, artifacts, and cultural spaces associated therewith – that communities, groups, and, in some cases, individuals recognize as part of their cultural heritage." Defines the intangible heritage. On the other hand, oral traditions such as stories, legends, and histories can be included if they have cultural values. Smith (2006) mentions that oral traditions are one of the most important factors for maintaining cultural continuity and community identity. Also performing arts such as music, theater, dance, etc... generally performed for rituals and social events which create social connections among communities and define cultural identity can be included as a part of intangible heritage (UNESCO,2003). This identifies the reason of this work by directing the attention towards well-known items and methods.

Culture as a multifaceted concept include social behaviors, norms, art, customs, habits etc., accepted by individuals of communities (Geertz, 1973). It is product of social interactions decided with social behaviors created by communities. There are several components of culture:

- Heritage and culture
- Culture and identity
- Investigating heritage

2.1 Heritage and Culture

Heritage and culture function together in preserving cultural identity, ensuring that communities maintain a strong connection to their history while fostering a sense of belonging (Lowenthal, 1998). Cultural heritage serves as a bridge between the past and present, grounding individuals in their historical roots while allowing them to navigate contemporary societal changes. It includes tangible elements such as monuments, buildings, objects and sites; non-physical elements such as cultural practices, languages, rituals, and oral histories (UNESCO, 2003).

Doing more than preserving, heritage and culture help transmit knowledge and values from one generation to the next. According to Smith (2006), intercultural combat has many implications for continuity of cultures, identity and existence of cultures. If there is no active transmission, traditions will lose their force and meaning. Education, storytelling, and community involvement are essential to keeping traditions alive.

The continual transfer of knowledge and the capability to adjust to evolving circumstances both influence cultural sustainability. Since the heritage is more stable than culture, it is said that culture changes with changes in technology, globalization and social conditions (Hall, 1990). The interaction of stability with change enables societies to reinterpret their cultural heritage in present-day settings, making it relevant to contemporary life while also acknowledging the past. One method is adaptive reuse, which transforms a heritage structure into a cultural or commercial center. An example includes industrial sites (Rodwell, 2007). This tendency is one of the most positive main stream that raises the awareness of the communities about the possibilities.

In addition, cultures change due to contact with other cultures, changing location and cultural exchanges. This adds a great variety of tradition and challenges authenticity. The architecture of preservation and the architecture of development need to co-exist. Those who are negotiating between the two are significant. It is important to have policies that recur just to them (Harrison, 2013). Institutions, governments, and local communities must work together to safeguard cultural heritage while allowing for organic cultural growth. As mentioned before, these relations being not well maintained, result always with neglect and passive attitude of communities towards all categories of heritage

So far, the contemporary discourse, shows that heritage is not just about remembering the past but also about constructing identity in the present. It influences how individuals and groups define themselves and their place in society. Through cultural heritage sites, museums and archives, these identities take on tangible and symbolic forms that inspire national pride while facilitating cross-cultural dialogues (Ashworth, 2011). The challenge is to ensure that heritage conservation does not become static, but rather stimulates engagement of people, cultures, and organisms, and facilitates adaptation and sustainability, so that culture can thrive in all its diversity.

Seeing that heritage and culture is not the same yet interdependent can help societies craft more holistic cultural approaches to preservation involving reinterpretation and creativity for the future along with the past.

2.2 Culture & Identity

Heritage plays a huge part in communities to develop both senses of identity and belonging. Heritage sites are more than just a display of physical features; they also

tell stories and exhibit cultural values. This important aspect of heritage property is crucial for cultural diversity (Smith,2006). Heritage creates opportunities for sustainable development by social, environmental, and economic benefits. Plevoets & Van Cleempoel (2011) argues that the adaptive reuse of heritage sites can provide economic opportunities while stimulating tourism and preserving its significance. Through interactions by the community, the culture is dynamic in nature, which adapts to the environment and changing conditions. Hall (1990) describes cultural identity as a subject of 'being' and 'becoming' indicating the dynamic feature of cultural identity. Culture is historical and contemporary, and it always develops as a result of external and internal changes. Culture helps us form and maintain our identity as a community. It provides the means for society members to accept and receive their position in the society (Smith, 2006).

Identity managed as a concept that lets one distinguish himself or herself from others. It refers to the characteristics, qualities and attributes of an individual or group. Identity can be defined in a number of ways, such as personal identity and social or cultural identity. These identities can be molded by our genes or influences of culture, the environment, or even personal experiences. Conversely, culture helps to underpin how the community identifies. Cultural identity, therefore, is a dynamic and evolving construct, affected by internal developments and external relations. As communities are born and go through a life process phases, so too does their community identity, changing with new impacts, whilst maintaining core elements that give a sense of continuity.

Using the same mainstream, we can say that identity refers to the characteristics, qualities and attributes that define and distinguish an individual or group from others.

It has become a complex affair. Identity can be defined in many ways, including personal, social, and cultural, and can be shaped by various factors, such as genetics, culture, environment, and personal experiences. Identity formation is a lifelong process involving both internal factors - biologically and psychologically - as well as external factors like community, tradition, language, and memory collectively (Erikson 1968). One can understand identity through several dimensions like personal, social and cultural identity which contributes to the sense of belonging of an individual or group. Personal identity is the understanding one has of oneself, it develops a unique self-concept. Social identity is an identity one forms with a group, ethnicity, religion, or nationality. (Tajfel & Turner 1979) Cultural identity is formed from shared traditions, language, customs and collective memory (Hall, 1996). This provides you with a sense of continuity and a feeling of belonging to a history.

Many factors contribute to the formation of identity namely, biological, social, historical, and personal influences.

The biological and psychological factors are known to have an impact on personality and behavioral predispositions (Plomin & Caspi, 1999). Meanwhile, identities are primarily shaped by external factors – family, education, community and culture. Societal expectations, media representations, and historical narratives also play a role in defining identity by defining collective memories and shaping perception of self and others (Anderson, 1983). In this regard, identity is a continuous negotiation process (Giddens, 1991) especially in multicultural and globalized settings where individuals usually possess several identities blending cultural elements and adapting to new surroundings. This fluidity highlights the adaptive nature of identity, as it

evolves over time through experiences, interactions, and exposure to different perspectives.

Heritage is identity; it reflects one's connection with the past as well as its tangible and intangible manifestations. In case of any analysis on heritage, this is what the result states. It includes monuments, customs, languages, deeds, and stories that make a community feel it has a sense of self. Cultural heritage provides continuity and stability, enabling people to remain anchored in their past with new interpretations for the present (Lowenthal, 1998). The continual transmission of heritage across generations is essential for sustainability, as it affirms and reinforces commonalities. The way one perceives and preserves heritage largely depends on their identity. This can lead to discussions about authenticity, representation or ownership in societies with multiple cultural identities, i.e. the multi-cultural world (Graham, Ashworth, & Tunbridge, 2000). The relationship between identity and heritage shows why it is important for heritage management to be inclusive.

As previously stated, identity is a dynamic and multi-dimensional construct influenced by personal, social, cultural, and historical factors. While culture gives people a sense of belonging and continuity, it is flexible and able to adapt with the times and world events. The connection between identity and heritage shows the importance of “holding on” to cultural narratives but allowing for change. As the world continues to change rapidly, building a balanced approach towards identity and heritage is essential for cultural diversity and social cohesion.

In short, culture and heritage are important to community's identity as it reflect their history, tradition as well as value. The preservation and appreciation of cultural

heritage can help shape our identity as individuals, communities and nations. Further, it helps us discover and develop a sense of belonging, continuity and pride. Cultural heritage can shape identity through a process called self-categorization, which refers to the process by which individuals define and categorize themselves and others in terms of their group membership and identity. Cultural heritage can allow common experiences and shared pasts that help strengthen group identity and foster belongingness. Individuals are also influenced by the representation of cultural heritage in the media and public discourse. Process of self-categorization can occur, and either a positive or negative representation can take place (Phinney, 1996). Cultural heritage can significantly shape identity through self-identification. This is the process whereby people attribute meaning to their membership of social groups and the individual characteristics that follow from that. The cultural heritage gives sense of future and present. It helps to connect with ancestors as well as the past. Hogg (2000) believes that the access to cultural capital and the engagement opportunities matter for self-identifying. Shared knowledge of the past by a group of people that is produced through interactions and experience is called collective memory. Moreover, it is expressed in the moments of a group. Collective memory, an expression of cultural memory, is concerned with the way we think about the past. (Assmann, 2011) argues that collective memory contributes to a community's identity by providing a common story about the past and a continuity with the past. The way cultural heritage sites are interpreted will play a role in the creation of collective memory. It can be through an authentic representation of heritage and its values that this will be achieved.

2.3 Recognition of Industrial Heritage

Industrial heritage is an important part of our cultural and natural history. It includes buildings and structures, bridges, machinery, equipment and sites that were important for the Industrial Revolution. Following WWII, industrial heritage became recognized as a major field of heritage and conservation. This was the period of great scale de-industrialization in Europe and North America which saw the abandonment of factories, coal mines and so on (Douet, 2012).

The idea of designating industrial heritage as a protected category began gathering avant-garde attention in the 1970s. Organizations like the International Committee for the Conservation of the Industrial Heritage (TICCIH) came into being in 1973. In time, the publication of the Nizhny Tagil Charter in 2003 provided international principles for industrial heritage (TICCIH, 2003). The foundations encouraged that industrial heritage is defined by technology and architecture, but also place value on popular culture and the working-class experience.

During the last two decades of the 20th century and the first decade of the 21st century, national governments and international organizations increasingly recognized the importance of industrial heritage. UNESCO's World Heritage Convention—as can be seen from the Ironbridge Gorge in the UK or the Zollverein Coal Mine in Germany—began to undertake the inclusion of industrial sites on the World Heritage List (UNESCO, 1972). National heritage agencies of the UK, Germany and Canada also started cataloguing industrial sites on their heritage list after which the agency could offer protection and funding for their conservation.

Due to the increasing demand of industrial site adaptation, there emerged a concept called “adaptive reuse”. The approach aims at keeping the architectural and cultural meaning of the industrial buildings, while giving them a new function. Further, it contributes to sustainable development and identity preservation (Plevoets & Van Cleempoel, 2011). Countries’ legislation and planning policies now advocate for adaptive reuse as both an environmental and cultural strategy, combining heritage protection and urban regeneration goals.

Academic, legal and social recognition of industrial heritage in sense explained before can play a prominent role in shaping cultural identity as well as community memory. Adaptive reuse of industrial buildings can allow the space to retain their character, and stable evolution of spaces with the changing times. However, it allows creating potentially vibrant cultural spaces that can help in connection of community, and economy and society with the general development in the area.

Industrial heritage, which refers to the physical, cultural and social legacy of industrialization, plays a pivotal role in shaping the community’s identity. This heritage is a community’s shared history and values that helps connect with one another, leading to pride in their identity as a community. Industrial heritage plays an important role in the ways how culture shapes identity. Industrial heritage sites like factories, mills and mines give us a hands-on or material link with a community’s industrial past. They can be useful to help communities remember what their ancestors did to contribute to the industry’s development. It can help the community feel connected to its past and develop a sense of pride and identity along with it. According to De Lange (2013), industrial heritage can also help individuals connect to the history of their place, thus inducing an identity. The industrial heritage can shape identity by

creating new opportunities for economic development and community revitalization. Industrial heritage sites can be repurposed for new uses, such as museums, cultural centers, or housing, which can provide opportunities for job creation, tourism, and community services. The community's pride and identity can be revitalized as it holds great value for the community members. According to the author Dowling (2013), industrial heritage can create a sense of place. This occurs when the industrial heritage of a place is adopted by the community.

On the contrary, the concept of adaptive reuse where already exists can help reshape the identity of individuals and communities. Through this process a place's cultural heritage and historical significance can be preserved while providing an opportunity for economic development and community revitalization. Adaptive reuse can shape identity with respect to cultural heritage and historical significance. The community is provided with a sense of continuity and connection to the past through the preservation. In addition, the adaptive reuse preserves the character of a place. Retaining cultural heritage and historic significance can also foster community pride and identity within members.

Adaptive reuse is also be used to preserve cultural landscapes which can be an identity-forming tool. With in this research, we try to convince that adaptive reuse can help shape identity by creating new opportunities for economic development and community revitalization, as well as reimagining places. With the proper designs, adaptation projects can turn vacant buildings into new spaces for living, working, and playing, while at the same time creating jobs, affordable housing units, and services for the community. It can help the community to revitalize and create pride and identity of the community members. According to Kostof (1991), when old structures

are of little or no use, and they are harmfully affecting their surroundings, then they should be put to use either through a general rehabilitation or adaptive reuse. Also, adaptive reuse, through its influence on the built environment, can shape identity. The quoted section from (Harding, 2013) says that built environment can give a physical form to the identity of a place. Use the existing architecture and try to use the same structure for the new happening. This will give the new establishment a sense of continuity to the past. It can transform the identity of a place by creating new opportunities for economic development and community revitalization, which can help to revitalize the place and bring a sense of pride and identity among the community. To infrastructure the research, there are 4 sections:

1. Industrial heritage
2. Industrial heritage tendencies worldwide
3. Adaptive reuse of industrial heritage
4. Benefits of industrial heritage

2.3.1 Industrial Heritage (IH)

As indicated, the industrial heritage includes all those physical and cultural attributes like machinery, structures, sites, infrastructure, and environmental settings that involved in the making of industry. Not only useful from a scientific and technological point of view, but these elements are also important in an architectural, social, and historical sense. Industrial heritage is the physical evidence of humanity's transforming from agrarian to industrial and urban economies. It is what we find left from the process of industrialization, that continues to shape today's culture, economy and society (Douet 2012). One of the most well-known sites is the New Bedford Whaling National Historical Park in Massachusetts, which showcases the city's 19th-century wooden wharves, waterfront, and the whaling industry.

Industrial heritage is important not only because it represents our past and teaches us about technology. This preserves work history, technology development and nations and community's economy that defines important facet of cultural identity. Industrial heritage at these sites signifies progress and innovation but also reflects the hardship faced by industrial workers. In this way, they link the past and the present so that societies can learn how they came to be. The conservation of industrial heritage in places where industrialization defined local identity is crucial. It impacts architecture, urban design, and socio-economic development of the area.

The UN agency UNESCO and the non-governmental organization ICOMOS recognized industrial heritage and, thus, created awareness about its significance. The fact that UNESCO has included industrial heritage sites on the World Heritage List indicates the universality of these heritage sites and the need for preservation efforts. Although many problems faced by industrial heritage are easy to address with, when it comes to economic value. It is essential to find innovative solutions that allow the industrial heritage to coexist alongside the development for sustainability.

Nevertheless, industrial heritage is also one of the most threatened forms of cultural heritage. Due to changes in productive models, urban sprawl and technological obsolescence, many industrial sites have been left abandoned or demolished for several years. Due to the decline of manufacturing sectors across the world, many of these sites have either been abandoned or destroyed for a new development project. As a result, these spaces pose challenges to heritage conservationists and urban planners alike and require them to find protective and adaptive reuse measures.

2.3.2 IH Tendencies Worldwide

Industrial heritage and its conservation have attention globally, and recognition of social, economic, and historical value creates this attention these days. Different tendencies can be observed in this field, diverse preservation approaches can be seen, adaptive reuses, and community engagements. Globally recognition and attention on industrial heritages create a base for the development of international charters and guidelines for the protection and conservation of industrial heritages.

For the conservation of industrial heritage, The Nizhny Charter was established by The International Committee in 2003. This charter provides foundational principles and standards for the conservation of industrial heritage (TICCIH,2003). There are several trends on this matter to the adaptive reuse and sustainable development becoming some of the predominant trends in industrial heritage conservation. Adaptive reuse involves repurposing and new functions for industrial sites: it is not only preserving the industrial heritage but also creating sustainable development by using the existing to minimize the new construction and reduce environmental impact (Bullen & Love, 2011). There are many examples around the world, the adaptive reuse of factories into cultural centers, residential lofts, commercial spaces, museums, etc.... These wide opportunities for reuse revitalize communities and economies. Another topic is community involvement and social value which is becoming more important in the conservation of industrial heritage. Maintaining and recognizing industrial heritage can be successfully covered by the engagement of local communities in the preservation of industrial heritage for the social and cultural values of industrial heritage. Local area drives frequently center around the instructive and social benefits of preserving industrial sites, cultivating a feeling of pride and identity among local

communities (Jones & Holden, 2008). Technological developments create new opportunities for industrial heritage conservation, such as virtual reconstructions, and digital preservations, as some of the examples of technological benefits. It helps documentation and interpretation of industrial heritage in very innovative ways, also making heritage public and easily accessible for everyone (Letellier, 2007). The economic boost effect of industrial heritage sites through tourism is increasingly being recognized. Heritage tourism is one of the most important economic sources for communities. Industrial heritage tourism includes visiting museums, industrial sites, and themed attractions that can appreciate industrial history and value (Edwards & Llurdés i Coit, 1996).

Successful instances of adaptive reuse can be found in former industrial cities such as Manchester in the U.K. where old textile mills have been converted into creative workspaces and housing or Germany's Ruhr region, where former coal mines and steelworks have been transformed into cultural and recreational attractions (Rodwell, 2007). Today, the adaptive reuse of the above is a great way to conserve cultural memory and solve urban problems. Areas such as Manchester in the UK and Pittsburgh in the US have changed their industrial sites into mixed areas that promote economic growth but still maintained their industrial background (Shipley, Utz, & Parsons, 2006). Likewise, Barcelona's Poblenou district, once a dump site for obsolete industries, has been converted into a 'smart city' with modern park landscapes. This industrial heritage now serves as an incubator for technological innovation and creative industries.

On the other hand, there are numerous challenges such as industrial heritage conservation structural deteriorations, finding funding, and balancing modernization

while preservation. Successful conservation strategies need interdisciplinary approaches such as research, architectural conservation, engineering, and community engagement (Cossons, 2012)

2.3.3 Adaptive Reuse of Industrial Heritage

One of the best methods to conserve industrial heritage is adaptive reuse by using old industrial sites for functionality which makes use of their historicity and architecture at the same time. Industrial structures can be renovated and adapted to function as museums, cultural centers and educational institutions, commercial and residential uses thanks to adaptive reuse strategies. The Industrial Heritage Projects is the revitalization of industrial heritage to serve economically and become relevant in the contemporary world. These projects are generally recognized by various institutions.

To effectively conserve industrial heritage, implementing appropriate policies, encouraging public engagement, and pursuing collaborative efforts are essential. There is a need for governments, city planners, historians, and local communities to develop policies that recognize the value of industrial heritage for enhanced sustainability in local development. Conservation of Industrial Heritage must remember to address the needs of the people and conform to their identity. Furthermore, the incorporation of industrial heritage into the tourism strategies can further enhance the awareness of and turn these into cultural tourism destinations which enhances economic activity.

Consequently, industrial heritage signifies the advancement of scientific and technology of any nation. It shapes the landscape of human activities and the economy. Thus it manifests the high-level culture. By salvaging and repurposing industrial ruins, communities link their industrial past to new cultural and economic opportunities.

Industrial heritage conservation is a challenge and an opportunity. An opportunity to connect history to the present and use forgotten places for creative outcomes and a life to make a statement about yesterday when we are adapting to today and tomorrow.

Adaptive reuse as a conceptual, philosophical and approach is a crucial strategy in the preservation and sustainable management of industrial heritage, ensuring that historically significant structures continue to serve functional purposes in contemporary society. That is transforming old buildings and sites into new uses while maintaining their historical, architectural, and cultural integrity. Many industrial buildings, such as factories, mills, mines, warehouses and loading docks, have fallen into obsolescence as a result of technological upgrades, changes in economic structures or deindustrialisation. Even though these sites were left behind, they have a historical, cultural and architectural significance that justifies the need for adaptive reuse in order to protect the value of these sites and anchor them to contemporary urban and rural contexts (Plevoets & Cleempoel, 2019). When spaces are adapted to suit current community needs, they enable the easy refurbishment of old structures. This ensures that they remain relevant while maintaining their history.

2.3.4 Benefits of Industrial Heritage

Over the past few decades, the adaptive reuse of industrial heritage buildings has emerged as a holistic urban development, heritage conservation, and architectural innovation strategy. Renovation of industrial plant in cities under pressure from deindustrialisation, demography, and the global climate crisis has become a robust and adaptive strategy for dealing with the loss of function of buildings. It addresses not just material and environmental issues, but also cultural identity, community well-

being, and socio-economic signature. Adaptive reuse of industrial heritages has many benefits:

1. Cultural and historical preservation
2. Environmental sustainability
3. Economic revitalization
4. Urban regeneration and place making
5. Architectural development and educational importance
6. Community involvement and value of society
7. Tourism and cultural economy

Cultural and Historical Preservation:

Utilizing existing buildings for new purposes can help institutions save money and make good use of scarce resources. The working class and industrial development stories are often told through factories, warehouses, rail depots, power stations, and the likes. These buildings testify to industrialization and urbanization, and encapsulate memories, labour histories and technological transitions (Plevoets & Van Cleempoel, 2011). These buildings can thus be preserved and re-activated and become living parts of the urban fabric, ensuring that their historical meaning remains relevant in society today.

Environmental Sustainability:

Adaptive reuse results in environmental sustainability by generating less demolition debris, and conserving more raw material, and less overall new construction, embodied energy. Adaptive reuse makes use of existing building stock. As such, it reduces the carbon impact of development and it supports the principles of the circular economy (Bullen & Love, 2010). Urban planning is an important activity under the

context of global environmental challenges. Climate-resilient and resource-conscious urban planning.

Economic Revitalization:

Reusing buildings will often bring new life to an economy. Restoration projects can lure in private investment as well as raise real estate values. These sites have often been reconstructed as creative spaces or entrepreneurial spaces housing co-working hubs, art studios, and cultural institutions benefiting from the strong, flexible spatial qualities of industrial architecture (Yung & Chan, 2012). Adaptive reuse adds to the local economy while innovation and inclusivity become prevalent.

Urban Regeneration and Place-Making:

The adaptive reuse of a space is not only functional but social and spatial too. Redeveloped industrial sites are often at the heart of urban regeneration, bringing shops, parks and cultural institutions to rundown or neglected areas. The Tate Modern in London and the Zeche Zollverein in Essen are examples of re-invented buildings leading to new cultural centre forms in urban space (Shipley, Utz, & Parsons, 2006).

Architectural development and educational importance:

Architects and designers have various forms, volumes or materials to choose from through industrial heritages, which provide unique ideas that one can make use of to allow the creation of designs that differ from their typical typologies. Architectural experiments and innovation come from these space challenges Adaptive reuse projects have immense potential for education. Students and professionals work with material reuse and structural integrity within a historical context (Cantell, 2005). As a result, the industrial sites adaptive reuse enriches the architectural discourse and practice.

Community Involvement and Value to Society:

Adaptive reuse projects can be successful with planning processes that incorporate participation. When the locals and stakeholders collaborate in the design and programming of the reused spaces, it enhances the social cohesion, cultural relevancy as well as public ownership of such projects. The uses of industrial heritage must reflect local identities and needs, in other words, spaces which are socially embedded and widely accepted (Heath, 2001).

Tourism and Cultural Economy:

Reuse of industrial sites has become important anchor of cultural tourism because of their uniqueness. These areas may include museums and exhibitions, performance venues, and heritage trails that interest both national and international visitors. Their distinctiveness enhances regional branding strategies and contributes to the wider cultural economy (Edensor, 2005). As such, adaptive reuse advances not only conservation objectives but also tourism and economic development goals.

As stated earlier adaptive reuse's foremost benefit is it supports economic environmental and cultural sustainability. Thus it can offer a lot of good items. Economic benefits of adaptive reuse can spur local economies, attract investment, create jobs and boost tourism. Unused factories and industrial buildings can also be converted into cultural, commercial and residential complexes to revitalize the city. Industrial heritage is a vital part of the built environment that embodies the technology, social and economic changes of modernity.

In addition, adaptive reuse can also save money versus demolition and new building construction since the existing framework often acts as a solid base that cuts material and labor costs. The durability of industrial architecture, which is typically well-designed and structurally sound, makes these buildings excellent candidates for

conversion. Old factories have great open spaces with high roofs and big walls for either residential purposes or commercial purposes. These textile factories and foundries also can be modified into an art gallery or a museum.

From an environmental viewpoint, adaptive reuse is a very sustainable practice that is in line with circular economy thinking. According to Bullen & Love (2011), reusing existing structures can significantly lower the demand for virgin materials, limit natural resource usage and carbon emissions arising from demolition and rebuild. Commercial industrial buildings like brick and steel, reinforced concrete structures have strong structural frameworks that can be applied to several different uses with minimum environmental impact. The energy contained within these structures, which has been building over decades or centuries, is wasted during demolition.

The adaptive reuse of industrial heritage can limit urban sprawl and promote sustainable urban development by using existing urban fabric. Cities can use old brownfields rather than green fields for urbanization so that connectivity remains close to the area ("Roadmap to a Resource Efficient Europe," 2011). Remaking waterfront industrial zones are increasingly common, as seen with Canary Wharf in London and HafenCity in Hamburg. Successful redevelopment schemes offer adaptive reuse and help create resilient urban neighbourhoods.

The importance of adaptive reuse is that it protects cultural heritage and identity that an area already has. Industrial heritage sites are material links to the past that signify important events in technology, work history, and social transformation. The buildings being discussed hold the memories of the communities that built them. By keeping

and reusing old industrial buildings, communities can stay connected to their past while using them for new things.

Ball (2002) insists that the conservation of industrial heritage through the adaptive reuse of spaces enhances cultural identity by helping society to engage in educational, creative, and public activities. Museums, galleries, and cultural centers housed in former industrial buildings, such as the Tate Modern in London (a repurposed power station) and the Zeche Zollverein coal mine complex in Germany, demonstrate how industrial heritage can be transformed into vibrant cultural landmarks that celebrate both history and modern innovation. The High Line of New York- an elevated railway converted to public space. Industrial structure transforms into new public space with several functions, while still honoring and remembering its industrial use.

In spite of the many benefits of adaptive reuse, a number of difficulties exist and these require careful planning. Regulatory barriers, including zoning, heritage conservation, building codes, and more, can complicate the reuse of an industrial building and require flexible and innovative approaches. Moreover, industrial contaminants or environmental factors, together with age, may also cause structural degradation that calls for extensive restoration before any adaptive reuse project can take place.

Ultimately, adaptive reuse is a powerful means of ensuring meaningful use of industrial heritage in the urban environment, transforming disused sites into active places for our present and future (Rodwell, 2007). In the same context, this research is in a quest for establishing proper mechanisms on how to approach, what can be done and how to be applied by considering the specific definitions of culture and identity of the communities.

Chapter 3

ADAPTIVE REUSE OF INDUSTRIAL HERITAGE - SELECTED CASES

3.1 Adaptive Reuse Design Strategies: Review

Adaptive reuse refers to the process of re-functioning old historic buildings for new uses while preserving the originality of the architectural features and historical significance. This strategy is widely used for its sustainability, cultural preservation, and economic benefits. Successful adaptive reuse needs to revitalize the communities by creating functional spaces that can fulfill contemporary needs. There are several key elements of successful adaptive reuse such as cultural preservation, sustainability, economic revitalization, and community engagement. Adaptive reuse projects generally focus on the preservation of heritage and integrity by protecting originality and materials these maintain the cultural significance of the site and also keep the heritage value (Cantell, 2005). Also, it helps reduce the need for new construction and maximizes the lifespan of buildings. Transform their functions also create job opportunities and support economic growth through tourism development. Another important key factor is engaging local communities. Successful adaptive reuse projects need to be sure that new functions will be relevant and beneficial for the users. Community engagement fosters a feeling of ownership and pride while contributing to sustainability and success in the long term (Plevoets & Van Cleempoel, 2011).

Adaptive reuse is a sustainable architectural practice that depends on existing buildings are utilized for new uses enhancing the historic, cultural, and architectural character of the structure. For instance, old office building adaptive reuse to make a hotel and restaurants; it involves remodeling an already existing structure for new use upon a certain evaluated demand. It is not only a conservation practice but an enabler of sustainable development, empowerment of community and urban renewal. The next section specifies the design strategies most commonly used for adaptive reuse projects such as:

1. Minimal intervention
2. Reversible design
3. Adaptive spatial zoning
4. Integration of modern infrastructure
5. Material honesty and contrast
6. Interpretive design
7. Green and sustainable retrofit
8. Cultural programming and flexibility

Minimal Intervention:

One critical principle employed in the architectural process of adaptation is minimal interference, which aims to preserve as much as possible. A strategy that all architectural and historical part of the building is maintained. Cantell (2005) expressed that minimal intervention is essential for the maintenance of the cultural and architectural identity of the building which is important in preserving its significance. The minimal intervention principle advocate for retaining as much of the original material of building as possible. Essentially, minimal intervention means that the work done will be restrained and will not result unbalancing the character and authenticity

of the original building to the extent that it will change it's character completely. The aim is to reinforce and adjust the building with minimal physical change necessary to enable it to perform its new function (Rodwell 2007). This strategy maintains the material memory in the site while adding to its historical value.

Reversible Design:

Interventions are reversible as long as they don't cause permanent alteration to the original structure. The strategy of 'open not closed' is particularly important in heritage conservation as it enables the future generation to reinterpret or reconfigure the site as required (Plevoets & Van Cleempoel, 2011). Reversibility means that interventions are part of a story and not the ending of the life of the building.

Adaptive Spatial Zoning:

This strategy reorganizes spatial functions in the existing building without altering its structure or historical character. Adaptive zoning or a form of spatial zoning examines the performance of large industrial spaces in facilitating changes in scale and function for a new use, such as public exhibition, mixed-use, community centre, etc. (Langston et al., 2008) The method preserves the identity of the building's space under ongoing use.

Integration of Modern Infrastructure:

There are instances in which features such as new stairwells, elevators, or utilities must be inserted to bring the work up to current standards. Using certain types of modern glass and steel can highlight the existing buildings while the new use will be clear to perceive and will honor the original (Sudjic,2000) Utilizing modern technology, including light, temperature, electronics, and accessibility devices, is essential for effective reuse of existing structures. Nevertheless, these additions must be meaningfully integrated to ensure minimal disturbance in the overall visual and

material continuity. Heath (2001) states that sensitive integration of heritage buildings can ensure current standards of safety, energy and usability without diminished aesthetic or structural values.

Material Honesty and Contrast:

Often, rather than imitating historically appropriate materials, contemporary interventions are distinguished from original fabric by embracing material honesty, which uses steel, glass or timber, etc, as a contrast to create a visual difference. This design approach will enhance the readability of the interventions and clearly differentiate the historic and the new (Cantell 2005). The use of juxtaposition enhances the story that the architecture is telling. It exhibits a certain layering in time and designers' intent.

Interpretive Design:

Creative design to weave storytelling elements within its spatial design. It can comprise signs, showcases, hands-on displays, and building components that help people see what the location meant in history. According to Edensor (2005), the inclusion of interpretive elements enhances the experiential and educational functions of reused industrial spaces, enabling their function as cultural archives.

Green and Sustainable Retrofit:

A major design issue in adaptive reuse is the integration of environmental strategies with all the building systems. These include passive design systems, solar energy, water recycling, recycled materials, and so on. Bullen and Love (2011) explain that sustainable retrofitting enhances environmental performance while optimising the embodied energy of existing buildings. This approach not only falls in line with wider objectives for sustainable urban development but also lessens the damage incurred to the environment through new construction. Sustainable reuse often includes the

materials used for construction as well. A key point in adaptive reuse projects is that they want to use reclaimed or recycled materials. This method saves resources as materials already in place are used instead of discarding them (Shipley, Utz, & Parsons, 2006).

Cultural Programming and Flexibility:

Adaptive reuse projects can gain from flexibility and multi-use programming that responds to changing needs. Adaptable interior designs that permit rooms to be rearranged for many different uses. This versatility allows the building to change in the future and use it as you wish without any structural changes (Plevoets & Van Cleempoel, 2011). Open-plan industrial structures are well-suited for a variety of cultural, artistic and commercial activities. According to Shipley et al (2006) flexibility makes adaptive reuse project relevant and economically viable while achieving a variety of community objectives.

These strategies are being more frequently used as a method for rejuvenating outmoded or underutilised buildings, especially in above ground areas. The adaptive reuse projects should not only be functional but also preserve the identity and integrity of the historic buildings. Functional integration strategy aims to incorporate multiple functions in a room or space of an existing building. The approach allows a wide variety of uses which maximises the utility of the structure ensuring its economic sustainability in the long-term.

3.2 Comperative Case Studies

This part of the research will show us how adaptive reuse of industrial heritages affects local communities and how we can successfully implement adaptive reuse strategies and its benefits with selected two successful case studies. Two cases were selected in that manner: one of them from North Cyprus the carob warehouses to analyze and

understand existing approaches in the same region of our topic and the other one is from İstanbul / Türkiye Santral İstanbul energy museum with a successful adaptive reuse project with several impacts on its own local environment. The chosen contextual analyses of this research include industrial buildings and complexes that were changed into contemporary exhibition halls, displays, or potentially social centers. Every model will be distinguished and analyzed by four main criteria such as;

1. Design programs
2. Intercession procedures
3. Unique parts
4. The adaption of both the inside and the outside of the structures

To keep away from dull models, I have chosen a wide assortment of contextual investigations that incorporate structures that didn't really of same function and locations.

Adaptive Reuse of Carob Warehouses in North Cyprus:

Adaptive reuse of heritage buildings preserves our culture and equips spaces with new functionalities as per the needs of today. The adaptive reuse of carob warehouses in Northern Cyprus by Yuceer and Vehbi (2014) is illustrated through a case study. Mainly located along the shoreline, these warehouses played an important agricultural, social, and economic role in the late 19th and early 20th centuries.



Figure 1: Location of The Carob Warehouses-The Villages-Starting From Kayalar to Kalecik.. (Map By Yuceer And Vehbi (2014))

Background of the project:

The carob warehouses in Northern Cyprus were constructed with the local material and technique of its agriculture. Hardly, some of these establishments have become dilapidated as a result of neglectful behaviour. The failure to comprehend their cultural meanings and the holistic conservation vision have contributed to their degradation.

The historical importance of carob warehouses relates to the agriculture of Northern Cyprus. The local community heavily relied on them for economic benefit, especially for the production and trading of carob beans, a major export product. These buildings also have architectural significance and embody traditional construction techniques and materials.



Figure 2: A Carob Warehouse in Mersinlik with Additional Units. (Photo by Yuceer and Vehbi (2014))

Adaptive Reuse Strategy:

The study suggests methods for adaptive reuse of warehouses which will include.

- I. Cultural tourism at the warehouses, which will be part of a cultural route related to the carob, its trade and history. By embarking on conservation of heritage buildings, a lot of efforts can be undertaken to boost tourism.
- II. Turning the warehouses into educational centres where visitors can learn about the carob trade, its history, and traditional agricultural practices.
- III. By getting the community involved in the new adaptations and use of old centres whose value is important for heritage, we can come up with contemporary uses which still hold on to the past form.



Figure 3: Proposed Tourist Routes For Warehouses. (Map by Yuceer and Vehbi (2014))

The proposal for the adaptive reuse of the carob warehouses could be a great success due to the various factors.

- I. Through inclusion of the warehouses in cultural tourism routes, the project would generate economic income and create jobs in the local economy. Focusing on tourism is consistent with the worldwide trend of heritage tourism that has promoted economic growth in many parts of the world (Timothy & Nyaupane, 2009).
- II. The method helps preserve the cultural and historical significance of these warehouses. It is an opportunity for local people and visitors to appreciate and engage with the region's heritage to help foster a sense of pride.
- III. The project promotes sustainability through the reuse of existing buildings instead of building anew. It reduces the environmental impact and conserves resources, in line with recent conservation (ICOMOS, 1999).
- IV. Community Involvement ensures that the new functions of the warehouse buildings can benefit the locals and are relevant to them. The use of participatory approach enhances social cohesion and the sustainability of the project.

Using carob warehouses in Northern Cyprus for different activities can help save cultural heritage while helping with economic and social development. Cultural tourism routes and educational use of these buildings, along with their usage for different cultural functions, maintain their relevance. Collaborating with the local community and adopting a holistic approach for sustainable conservation leads to more meaningful outcomes.

Addition to warehouses The Carob Warehouse in Limassol is a former warehouse built in 1960. The project's significance lies in the adaptive reuse of the building for contemporary needs, preserving its historical value. Through projects to reuse the warehouse for cultural events, while preservation of architectural integrity in addition to support for community engagement and tourism. Adaptive reuse has the ability to revive our cultural sites into living museums, which can be models of sustainable development in urban areas. These projects are designed to enhance historical identity and provide more economic functions while maintaining architectural authenticity.

Adaptive Reuse of Energy Museum in Sanatistanbul Türkiye

Background of the project:

Santralistanbul Energy Museum is located inside the Silahtarağa Power Plant. It was the first urban scale power plant of the Ottoman Empire. It supplied electricity to Istanbul between 1914 and 1983. In the late 1990s, the Silahtarağa campus was announced as an industrial archaeology monument by the Board of Preservation of Cultural and Natural Heritage. The regeneration scheme embarked on from 2004 to 2007 includes an energy museum, amphitheatre, modern art museum, concert halls and public library to create a milieu for production-culture-knowledge.

Adaptive Reuse Design:

The Energy Museum was designed in a way that minimally intervenes with the main elements of the building. The museum was built by transforming two adjacent machine halls. The goal was to preserve the site's industrial heritage, whilst also being functional and useable for today. The original structure was largely retained while new designs added stairways, viewing platforms, escalators, and bridges on upper levels to enhance visitor experience without compromising the original structure. The notion of the project and its execution followed the principles of conservation developed by the International Committee for Conservation of the Industrial Heritage (TICCIH), optimum intervention, and visible original form. The new glass materials were incorporated in such a way that the addition did not overpower the original building. The transparency of the material preserves the differences between the two sections.

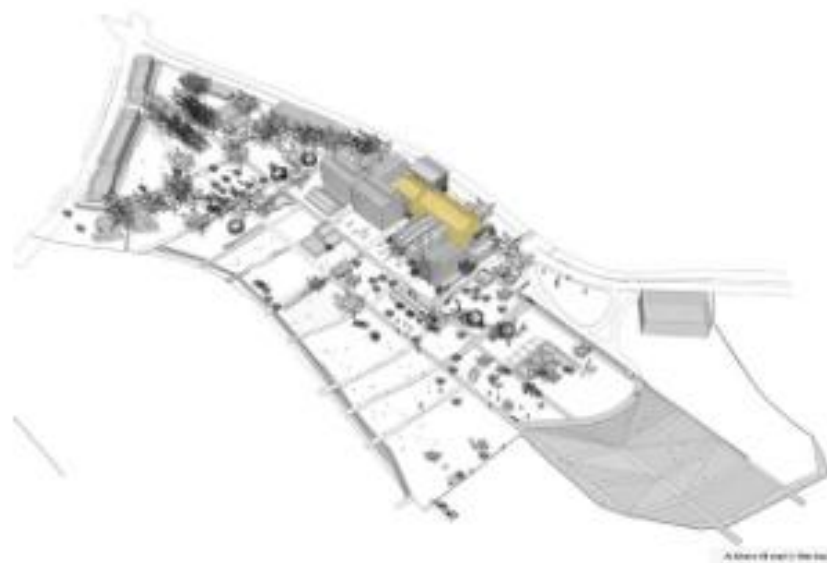


Figure 4: Proposed Tourist Routes For Warehouses. (Illustration by Sudjic, D Hussein, N. (2021))

Evaluation:

- I. The adaptive re-use of Silahtaraga Power Plant into the Santralistanbul Energy Museum is termed successful regarding several reasons mentioned below.

- II. The project was able to conserve important parts of industrial heritage, making the past and function of the original power plant understandable to many. This respect for minimal intervention has safeguarded the historical and architectural integrity of the building.
- III. Adaptation of the transformation has multifunctional cultural space, energy museum, cultural, and education spaces. The site's diversification of the use has helped in keeping it relevant as well as offering attraction to a big audience.
- IV. The incorporation of education art and public events facilities has made the museum a hub of community engagement and cultural activity. This has made the social, and economic condition of the area stronger where it is located.
- V. Architectural Integration: The modern aspects were successfully integrated into the historical building. The new constructions are placed transparently to maintain the old industrial character of the site as the principal design quality.



Figure 5: Adaptive Reuse in Santralistanbul Previous and New Building. (Photos by Sudjic, D Hussein, N. (2021))

The Silahtarağa Power Plant's transformation into the Santralistanbul Energy Museum demonstrates that bigger industrial structures can find new reuses, provided there is a will and a vision. The project has helped preserve an important piece of industrial heritage and added cultural educational value in contemporary times. This thesis

shows how adaptive reuse can preserve culture while fulfilling contemporary requirements and triggering community development.

To sum up, the essentials of adaptive reuse and its various strategies, and case applications in industrial heritage conservation. A careful analysis of adaptive reuse design strategies identified the relationship between historical authenticity and contemporary accommodation for successful intervention and efficacy of the design strategies. Strategies like minimal intervention, reversible design, interpretive architecture, and sustainable retrofitting can effectively transform industrial sites into functional, culturally relevant, and environmentally responsible spaces.

The examined case studies of Adaptive Reuse, Carob warehouses of North Cyprus, and Santralistanbul Energy Museum of Türkiye, reveal that Adaptive Reuse can initiate urban reinvigoration, reinforce cultural identity and strengthen economic sustainability. Through these cases, it became clear that community engagement, contextual design, and long-term sustainability are essential inputs for successful reuse.

This chapter has shown that adaptive reuse is a very important practice in the case of industrial heritage. This confirms that adaptive reuse, done in an intelligent way, can save the fabric and symbolism of the industrial past and offer spaces that fulfil the social, cultural and economic uses of today and tomorrow. As the background of the design proposal of CMC Mine Loading Deck, Lefke will be outlined, we can see the framework from this basic literature review.

Chapter 4

CMC (Cyprus Mining Cooperation) MINE LOADING

DECK: CASE STUDY

4.1 Historical Background

The Lefke town, located in the valley, adjacent to the sea, and bordering the region of Güzelyurt (located northwest of the capital Lefkoşa), is a frequent location for the island's natural resources (copper, gold, silver). The Trodos Mountain's northern foothills and coastal plain are home to the mine deposit (Xeros), which is situated about 40 km west of Lefkoşa in Northern Cyprus. In the region of the former Mavrovouni mine, elevations vary from sea level to about 300 meters above mean sea level (MSL) (Cohen, 2002). Rich copper resources have been discovered dating back to the Bronze Age (~1350 BC), which has raised the value of Lefke (Christofides, 2009).



Figure 6: Location of Lefke CMC&Mine Areas

The copper mining practice related to the early to mid-20th century activities that took place in the North Cyprus (Figure 6) were responsible for a great deal of industrial heritage. The deck for loading the Cyprus Mining Corporation (CMC) mine is included in this category. The CMC operated in great capacity in the region, especially in Karavostasi which functioned as the site for copper extraction and processing. The CMC was set up in the early 20th century and operated one of the Mediterranean's largest copper mines. The town of Lefke was established as the first industrial town of the island with the establishment of Cyprus Mines Corporation (CMC) in 1916 (Lavender, 1962). The mining activity is the extracting, processing and exporting of copper ore. Processed copper was loaded onto ships from the mine loading deck for the purpose of export. The CMC created jobs and made the economic condition better. It also was responsible for the infrastructure of the area. The mine was one of the biggest employers in the region and a vital part of the North Cyprus economy. The CMC ceased operations in the 1970s and the site was left abandoned, resulting in extensive environmental damage like heavy metal contamination and landscape degradation.

These derelict structures, notably the mine loading deck, have become markers of the industrial history of the area. The CMC Loading Deck, which dates back to the 20th century, was once an essential component of the Lefke copper mining industry. Today, however, it is recognized for its industrial heritage and economic developments in Lefke.

The site extends along the Mediterranean coast. The complex was designed using the construction techniques of steel structures, plus railway system, loading platforms.

Soli, archeological site of the city-kingdom that dates back to the 6th century BCE, is located just a few kms from the CMC site (Gjerstad, 1927-1931). The ancient town of Soli is known for having ancient Roman mosaics and a basilica theatre. In today's era, Lefke's industrial past masks an exterior of space and sanity and a likelihood of contamination. But as obvious, the close relationship between Soli and the CMC site allows for the weaving of stories of the past and present in a way that will take visitors on a journey through time.



Figure 7: Locations of CMC Mine Loading Deck & Soli - Lefke (Googleearth.Com, Reached June 2024).

4.2 The Site and It's Features

The site has a significant location and historical background which is very related to the topic as explained in earlier parts mainly the project focuses on the CMC Mine Loading Deck with several buildings which is attached to the deck from the entrance of the complex we can observe several buildings for each phase of mine process each

building. Till the end of the deck, 900m of mine loading buildings are located linearly and attached to the rails to move the mines to the ships (see figure 8).



Figure 8: View of The CMC Mine Loading Deck From The Northwest, Showing Structural Features and Environmental Context. (Photo by Author, 2024)

Soli, the ancient city is situated beside the main road in southwards direction (figure 7). The ancient city of Soli is located on the northwest coast of Cyprus, close to the town of Lefke. It is one of the most significant archaeological sites on the island. Originally named Aepeia, the town was moved and renamed Soli in the 6th century BCE. This was supposedly done upon the reputed advice of Solon, the Athenian lawmaker, who suggested the move to a coastal town (Hill, 1949). During the Classical, Hellenistic, Roman and early Byzantine periods, this city which developed into a city probably in one of the ten ancient kingdoms of Cyprus.

The significance of Soli in Cyprus is considerable with regard to the urban, cultural, and religious development of ancient Cyprus. The major city-kingdom Soli was a trading and political centre, located on one of the primary maritime routes of the Mediterranean. During the Roman period, the city flourished, with a theatre, a basilica, baths, and streets laid out in order. The buildings show that people in Soli were cultured and organized. The swan mosaic from the early Christian basilica is especially noted, as it is one of the best examples of late Roman decorative art in Cyprus. The basilica was also known for its symbolic and geometric mosaic floors (Megaw, 1974).

Archaeological evidence suggests that Soli occupied an area of 25 to 30 hectares despite only a portion of the city being excavated (Given & Knapp, 2003). The theatre is maybe the best preserved of the island's ancient theatres and could seat some 3,500 spectators. The site's natural sloping landscape allowed it to be used for both civic and ceremonial purposes. The close proximity of the early Christian basilica is proof that Soli was transformed into an important Christian centre at an early stage and confirms the existence of a basilica-type architectural plan. Moreover, the floors are richly decorated and the apse termination type is early Christian type.

These days, the site has several important architectural remnants that are open to the public. They include the Roman theatre, the basilica complex with mosaics and parts of domestic and bathing facilities. Although the visitor pathways and interpretive signage are available, the tourist infrastructure is poorly developed. The Department of Antiquities has offered stabilization works to essential structures and protection to mosaics, while archaeological research continues to reveal more of Soli's past and spatial layout (Papageorgiou, 1986).

The importance of Soli in its architecture is a testimony of the continuity of Cyprus from antiquity to the age of early Christianity. A unique settlement spanning distinct periods including pre-Roman design and early ecclesiastical architecture, it is crucial for the understanding of the social, economic and spiritual life of the island's inhabitants. According to Karageorghis (2000), Soli sheds light on the archaeological significance of Cyprus and serves as an emblem of its civilizational crossroads. The CMC Mine Loading Deck located near the site presents a unique opportunity for the Lefke building to interpret the heritage from its existence as a city-kingdom to its role as an industrial site. A combination of oldest and industrial heritage makes the site have a distinguishing feature as well. (figure 9).

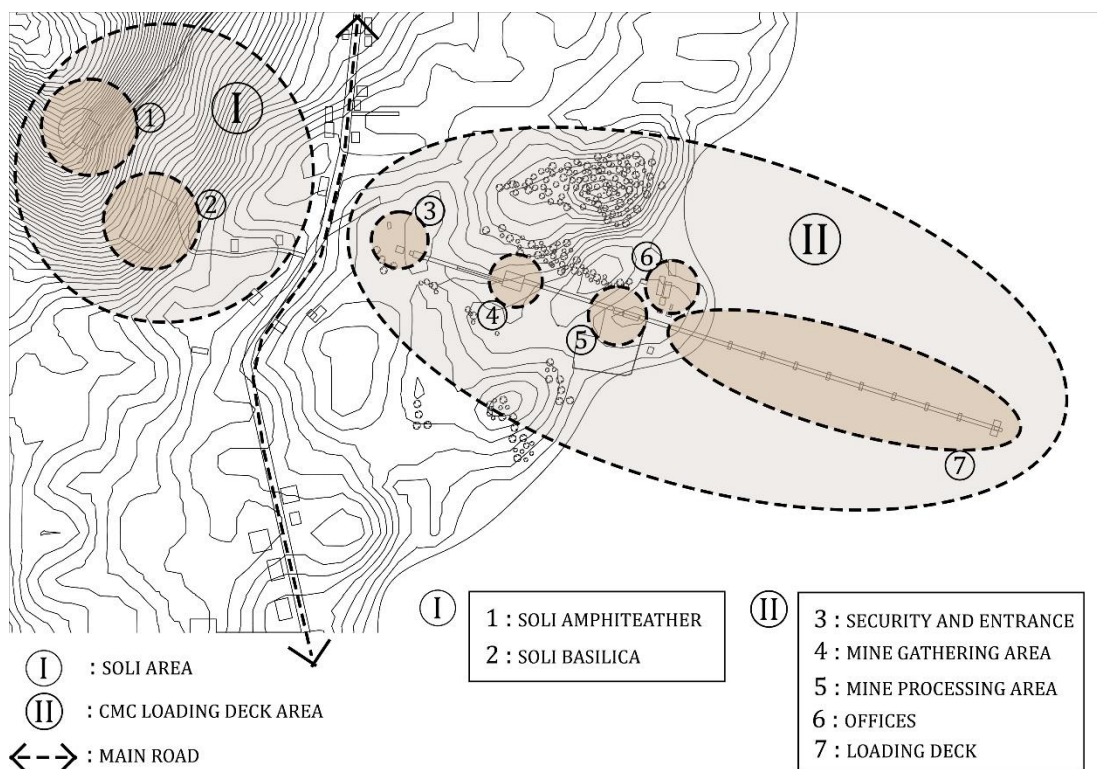


Figure 9: Zone Map of Soli and CMC Loading Deck (Diagraming by Author, 2024).

4.3 The Lefke CMC Mine Loading Deck Complex: Characteristics

Although it is not formally declared as, The CMC Mine Loading Deck in Lefke is a significant representation of industrial heritage, reflecting the natural, social, historical, economic, and technological developments taking place in North Cyprus during the 20th century. The loading deck, part of the infrastructure of copper mining, was used to transport processed copper ore, showing the industrial potential of the region.

- Architectural features.
- Historical, environmental and cultural significance.
- Current state of preservation

4.3.1 Architectural Features

The CMC Mine Loading Deck complex is an extensive linear structure stretching approximately 900 meters along the Lefke coastline. The deck's rail systems and loading stations were designed to simplify the copper loading process to re-order copper from processing places to vessels docked at berths. The architectural design provides functionality and durability. Reinforced concrete and steel withstand a heavy industrial use design. The solid construction and practical design of the post office demonstrate the engineering principles of the early 20th century.



Figure 10: View of The CMC Mine Loading Deck From The South, Showing Structural Features and Environmental Context. (Photo by Author, 2024)

Supporting facilities such as warehouses, workshops and offices are located on the deck. The construction of these auxiliary structures using local materials and techniques further enriches the site's historical significance. CMC Mine Loading Deck is a unique industrial heritage site of the nation because of its industrial function and local craftsmanship. The Cyprus Mines Corporation (CMC) Mine Loading Deck, Lefke, exhibits the functional modularity and a commitment to utility that characterises many of the industrial buildings of the early to mid-20th century. Mantos Copper has begun construction of an export cargo facility on the MacReady Bay coast in Stereaca, Cyprus. Designated to serve one of the island's major mining operations, it was designed to load mined copper ore from the processing plants for shipment on vessels.

The long high linear slab or the loading deck is made of predominantly reinforced concrete and steel which are modern industrial materials. It is made in a form following function – a central principle in industrial design. Minimalistic, robust and resistant to environment stress. The linear structure of the deck follows the rail track system along which ore carts moved that tipped their contents directly on the deck or into ships or bins below.

Key architectural elements include:

- The structure is supported by a regular series of vertical concrete columns that raises the deck above ground level. These pillars were made in the early 20th century, therefore, demonstrate a standardized and prefabricated construction to ensure quick assembly and load distribution.
- The rail and loading conveyor take place within a structural steel framework. These frames, along with the rail mountings, have suffered severe corrosion. Hybrid application of material shows where structural strength and flexibility were imperative.
- The low-rise superstructure structure was designed to allow air ventilation and direct entry to spaces without any obstruction wall making it able to resist the accumulation of any material. By being open, little maintenance was required and monitoring of the loading took place. Over time, this exposure has caused significant weathering and decay.
- Repetitive Modular Design: The repeating nature of bays and similar components seen along the deck indicates modular thinking, which helps in scalability and standardization of maintenance. The site's modularity is a significant visual trait that reveals its industrial rhythm and architectural character.

- Coastal Orientation and Site Integration: The structure was oriented in the direction of the coastline in alignment with the docking ships. Interrelationship of the built form with the topography of the place assures the institutional role of the building which is connected to the ocean and functions within the global extractive supply chain.

The architectural components of the CMC Loading Deck still express themselves strongly despite their state of disrepair. The exposed rebar, corroded steel, and cracked concrete are all evidence of material decay which now add to the site's aesthetic of industrial ruin, a quality that is both poetic and heritage. The damage and disuse of the past have left their marks on Cyprus's industrial sites, which are as much part of the story as the machines.

Architecturally, the character of the deck provides various opportunities for conservation and reuse interpretation and design. Due to its open layout and modular rhythm, the structure can be easily adapted for use as a cultural, educational or public building.

The strong concrete supports has the potential to support light and reversible interventions and the contrast of decay and restoration can be used to tell a story of transformation and memory.

To sum up, the CMC Loading Deck is not just a useful object but also a major industrial artefact of the material culture relating to mining in Cyprus. The architectural elements of the loading deck present a physical structure from which one

can interpret cultural heritage. Additionally, they invite creative design responses relating to adaptive reuse.

4.3.2 Historical, Environmental and Cultural Significance

The Cyprus Mines Corporation (CMC) Mine Loading Deck located in Lefke is of multi-dimensional significance that is not confined to its architectural and industrial form. The structure is associated with one of the larger mining infrastructures in the Eastern Mediterranean in the twentieth century. Furthermore, the building is significantly intertwined with the history, environment and culture of North Cyprus. Knowing the broader scope of the site is vital due to layered meaning which is crucial for its adaptive reuse as cultural heritage.

The loading deck formed an essential part of the Cyprus Mines Corporation's process. An American company, it controlled copper mining in Lefke from the beginning of the 1910s until the end of the 1970s. The British colonisation also created industrial infrastructure that included ore-processing plants, transport systems, and export terminal (loading deck). This made Lefke an important industrial centre (Given & Knapp 2003).

The deck itself was the last step of the roadway to the sea supply chain for copper where the refined copper ore was transferred from land to sea. Thereby, it is a physical remnant of Cyprus's incorporation into the global capitalist network which began in the 20th century. The deck is important in the industrial heritage of Cyprus. The site's technological, economic, and labour histories present a larger colonial extractivism and modernization. Douet (2012) and Stratton (2000).

CMC's operations in the past leaves a legacy that you cannot separate from its physical infrastructure. The area around the wharf, including the coasts and soils, continues to suffer from severe contamination caused by decades of intensive mining and ore processing, particularly heavy metals (Yücel, 2006). The materials and rust on the outside are a tell-tale sign of how badly the deck has degraded.

Simultaneously, it also has potential to create a platform for environmental education and ecological reconciliation. By adaptive reuse and landscape restoration that brings the loading deck into the present, it can become a space where past environmental damages can be acknowledged and interpreted. Because of its location on the water's edge, re-use can potentially incorporate climate-sensitive design responses in place of future plans. This may include the impacts such as sea-level rise, coastal erosion and ecosystem rehabilitation (Bullen & Love, 2011).

The loading deck and the wider CMC complex have deep significance in Lefke's identity and collective memory, culturally. The site has historically been linked to industrial working and economic development. It is also associated with social transformation migration education and urbanization. The CMC kept generations of residents in employment and its physical infrastructure became an integral part of the town's spatiality and emotionality (Papadakis, 2005).

Today, although abandoned, location is nevertheless an emblematic site, emblematic of Lefke's industrial past and a potential resource for community revitalization. The physical impact of the building on the coast and its visibility from various locations in the town gives it a strong presence and identity influence over residents' perception of their own local heritage.

The architectural and functional reimagination of the deck through adaptive reuse provides an opportunity to connect the community with its industrial heritage and create stories of continuity, resilience and transformation. According to Smith (2006), future reuse scenarios can benefit from incorporating public memory, oral histories, and community heritage practices, allowing the conservation of cultural values along with the site.

4.3.3 Challenges and Opportunities

One of the most significant challenges to the preservation of the CMC Mine Loading Deck is balancing remediation and heritage. Because of large-scale contamination and damage to the structure, we need the help of environmental engineers, architects, and heritage experts. Working communities are vital in gaining local acceptance and support for conservation actions.

On the contrary, there is notable potential for reuse. Revitalizing the loading deck into a cultural space or museum can commemorate the industrial heritage of Lefke and contribute to economic revival. Drawing from the adaptive reuse of other successful buildings, such as the Santralistanbul Energy Museum in Turkey, the CMC site can be an educational, tourism, and community activity focal point.

The deck where the CMC Mine was loaded is a part of the story about industrial heritage in North Cyprus. This story shows the undesired changes, that other industrialization brought about. According to Douet (2012), industrial heritage has tangible evidence of technology and culture throughout the ages. The handheld loading deck must be preserved as it adheres to the international conservation principles of integrating a historic narrative into today's communal life (TICCIH, 2003).

Overcoming challenges and maximizing opportunities can transform the CMC Mine Loading Deck for Lefke and beyond into a cultural identity and a sustainable development project.

Chapter 5

ADAPTIVE REUSE OF LEFKE CMC MINE LOADING DECK COMPLEX

5.1 Analysis and Recent Condition of the CMC loading deck

Based on the field works, general condition and decay analysis with the suggestions and recommendations presented as a table below;



Figure 11: View of The CMC Mine Loading Deck From The Northwest, Showing Structural Features and Environmental Context. (Photo by Author, 2024)

Table 1: Decay Observation and Suggestions

<u>Aspect</u>	<u>Condition</u>	<u>Observed Decay</u>	<u>Suggested Adaptive Reuse</u>	<u>Conservation & Restoration Recommendations</u>
Structural Framework	Partially intact, though weakened due to lack of maintenance and exposure. (figure 12,14,15,17)	Rusting of metal framework, particularly in support beams; instability due to corrosion and load-bearing decay.	Repurpose as an elevated viewing platform or interpretive exhibit for visitors.	Reinforce with compatible materials; replace severely corroded sections; use rust-resistant treatments for remaining structure.
Exterior Cladding	Significantly weathered, with sections missing or heavily corroded. (figure 13,16)	Loss of cladding in some areas, exposing internal framework to further degradation.	Retain partial cladding for aesthetic purposes while exposing sections to show original materials.	Stabilize remaining cladding with protective coatings; replace missing panels with materials that match the original appearance.
Roof Structure	Decayed, possibly due to exposure to weather without regular upkeep. (figure 13)	Visible deterioration in roofing materials, likely leaks, and structural weakening.	Preserve or partially reconstruct as shelter for visitors; add educational panels about industrial processes.	Repair or replace roofing with compatible materials; apply waterproofing treatments to prevent future deterioration.
Windows and Openings	Mostly broken or missing; remnants of frames are visible. (figure 13,16)	Broken glass, missing window panes, and degraded frames due to corrosion and weather exposure.	Retain frames as part of historical aesthetic; consider transparent barriers to protect interior.	Replace or restore window frames; install plexiglass or protective barriers if necessary to shield interior from elements.

Foundational Base	Stable but partially buried under debris and possibly contaminated soil. (figure 12)	Potential erosion around base; accumulation of waste and industrial debris from	Expose as a feature of the site's history; design interpretive paths around	Clear debris around base; stabilize any eroded sections; test and remediate soil if contaminated
Interior and Machinery	Possibly decayed but could hold historical value (if still intact).	Rusted machinery, remnants of conveyor systems, mining equipment may be present and corroded.	Use as static exhibits to explain historical mining processes; retain original machinery as part of interpretive design.	Clean and treat remaining machinery; stabilize for safety; apply rust inhibitors to prevent further corrosion.
Safety and Accessibility	Limited due to industrial nature; potential hazards for visitors. (figure 13)	Lack of guardrails, open windows, and exposed structural elements could pose risks.	Add necessary guardrails and guided pathways; ensure ADA compliance for accessibility.	Install modern safety measures that blend with the industrial design; add signage warning of any remaining hazards.
Interior and Machinery	High exposure to coastal conditions, accelerating decay. (figure 15,17)	Salt corrosion on metal parts; general weathering due to lack of protective treatment.	Emphasize educational signage about the impact of the environment on industrial heritage.	Apply anti-corrosive treatments to metal surfaces; use protective coatings for concrete or wood elements to slow further decay.
Environmental Exposure	High exposure to coastal conditions, accelerating decay. (figure 17)	Salt corrosion on metal parts; general weathering due to lack of protective treatment.	Emphasize educational signage about the impact of the environment on industrial heritage.	Apply anti-corrosive treatments to metal surfaces; use protective coatings for concrete or wood elements to slow further decay.

Aesthetic and Historical Value	Preserved industrial look, though heavily worn.	Weathered, rusted, and decayed exterior adds to the industrial aesthetic, but requires stabilization	Highlight as a "decay aesthetic" that tells the story of the mining history and environmental impact.	Carefully clean surfaces to maintain patina; add minimal lighting and signage to enhance visibility without disrupting the original look.
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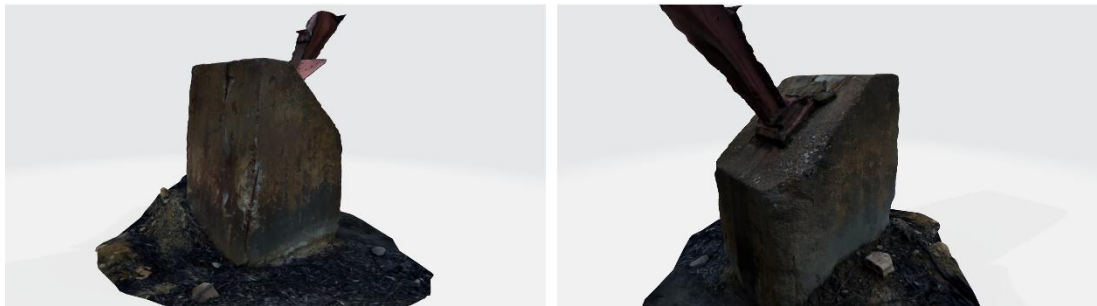


Figure 12: Column Pillar Decays (3D Scan of Pillar by Author, 2024)



Figure 13: Material Loss on Roof & Hazard (Photo by Author, 2024)



Figure 14: Steel Connections & Decays (Photo by Author, 2024)



Figure 15: Steel Loading Bridge (Photo by Author, 2024)



Figure 16: Wall Material Decays & Broken Windows (Photo by Author, 2024)



Figure 17: Rust and Corrosion on Steel Columns (Photo by Author, 2024)

5.2 Design Proposal for Adaptive Re-use

The Cyprus Mines Corporation (CMC) Loading Deck in Lefke is ideal location to host an integrative approach and adaptive reuse as a multifunctional cultural hub, linking Lefke’s industrial past with the ancient city of Soli within unique natural content. This proposal proposes transforming the abandoned industrial site into a multifunctional cultural space that celebrates the history, culture and architecture of Lefke. This project intends to combine the industrial narrative of the CMC site with the archaeological narrative of Soli to create a cohesive heritage experience. The adaptive reuse of CMC Loading Deck can preserve its industrial identity and recreate a cultural and civic recreational space. Moreover, the design bears a possibility to connect back to Soli’s ancient character. Features that can define the transformed site is presented as a draft list of cultural and educational spaces:

“The Industrial Heritage Museum”: It showcases Lefke's copper mining past with interactive exhibits that display artifacts, photos, and memories. There will be specific sections on environmental impact, and social impact of mining. This will encourage critical reflection on industrial heritage.

“The Ancient Heritage Gallery”: This can showcase artifacts that highlight the archaeological importance of Soli, including replicas of Roman mosaics and digital

recreations of the basilica and theater. This gallery represents the interrelationship between industry and archeology in the region.

“Thematic Pathways”: A walking trail will link the CMC Loading Deck with Soli, accompanied with interpretative signage that will connect visitors to the two sites.

Draft List Of Recreational and Community Spaces:

“The open-air amphitheater”: It can derive from the ancient theater of Soli, which can host performances/lectures and other events.

“Heritage park”: It can consist of green areas with remnants from the industrial infrastructure where visitors can relax and explore Lefke’s industrial heritage in natural surroundings.

“A pedestrian walkway”: From the CMC Loading Deck to Soli, along the beach, will enhance views of the Mediterranean for tourists while facilitating efficient travel through sustainable tourism.

5.3 Potentials for Tourism and Economic Development: Expected Outcomes

Designated spaces within CMC site will host markets promoting Lefke’s craftwork and carob-based products as well as traditional local Cypriot cuisine, providing opportunities for entrepreneurs. There will be flexible indoor and outdoor spaces for exhibitions, community gatherings, and cultural festivals, which will enhance the tourism potential of the area.

The adaptive reuse project practices will adapt to ensure time reliability.

1. Environmental Remediation refers to handling contaminated coal mine that will be done at CMC site environment through proper treatment not only the

water but also the soil in the area which get contaminated because of the previous operation in the area.

2. Renewable Energy Systems will deploy solar panels and wind turbines to the site so it won't produce any harmful power.
3. Green architecture consisting of green roofs, vertical plants etc. will beautify the site and reduce carbon footprints.
4. The proposed Community/Multi-purpose Center (CMC) near Victoria Park Victoria, Australia, is informed by the following principles:

To increase the cultural and touristic value of the project, it is aimed to connect the CMC Loading Deck with the ancient city of Soli. This will be achieved through the following measures.

1. Both sites will share a common brand; they will be marketed as “The Heritage Corridor of Lefke.”
2. Guided tours will explore the industrial heritage of the site and the ancient history of Soli. Visitors will be introduced to Lefke's cultural evolution.
3. Transportation Links: Visitors will be encouraged to shuttle between the sites and walk from one to the other.
4. The CMC Loading Deck and Soli area will hold festivals, educational workshops and cultural events that showcase their common heritage.

The project will be done in four phases for effective implementation.

1. Phase 1: Preparing the Environment and Structure: Mitigate contamination, stabilize structures, and prepare property for redevelopment.
2. Phase 2: - Development of Basic Infrastructure: Make museum, gallery and path from CMC Loading Deck to Soli

3. Phase 3: refers to recreational and community facilities: Construct the amphitheater, heritage park, and artisan market to make it a cultural site.
4. Phase 4: Integrated Operations: Start programs connected with Soli's heritage for sustainable handling and prolonged validity.

Expected Outcomes

The CMC Loading Deck's adaptive reuse and the nearby ancient city of Soli is expected to transform the area into a cultural hub.

1. The local economy of Lefke, Syria would benefit from increased tourism and job creation, which would support local shops
2. The project will protect Lefke's industrial and ancient heritage for generations to come.
3. Encourage Local Participation: Local involvement in planning and operations will strengthen community identity and pride.
4. Sustainable tourism can be achieved by making the places environmentally sustainable and culturally authentic to attract conscious-turned-travelers and a mixture of scholars.

Transforming the CMC Loading Deck into a cultural space will connect Lefke's industrial past with ancient history, creating an opportunity to create an alternative story of Lefke. The project will associate the site with the ancient city of Soli with the creation of a cultural production centre, creating a social value that will get recognition on a global scale.

5.4 Architectural Program Proposal For Adaptive Re-use

The architectural program for the adaptive reuse of the CMC Loading Deck as a cultural hub outlines the spatial, functional, and sustainable components required to

achieve the project's objectives. The goal is to link the industrial heritage of the site with present needs for diverse cultural, educational, recreational and economic use. The scheme manages to strike a balance between historical integrity and modern interventions so that it fulfils a purpose for both locals and visitors. The program is split into five zones, each implementing a culture, education, recreation, and economy project.

With this proposal, one of the possibilities is to design spaces created to encourage creativity, learning, and development of the community are known as “cultural hubs.” Cultural hubs are places for artistic performance and expression. They are often venues for exhibitions, workshops and social events. In adaptive reuse, we can transform industrial heritage sites into cultural spaces that sustain the historical integrity of the sites while giving them a new meaning. This chapter takes a close look on cultural hubs and how they contribute to the conservation of heritage. It further explains how these hubs can be useful for the CMC Loading Deck in Lefke.

We see both cultural hubs that are physical spaces but also an idea that binds together a variety of cultural and creative activities. Cultural quarters have the power to regenerate a city and help in building social connectivity. Jones and Holden (2008) Exhibition halls typically serve multi-purpose uses offering facilities for performances, exhibitions, education, and events and festivals. Heritage sites when activated to become cultural Beacons, they become spaces for sharing and protecting cultural narratives. They also become spaces for innovation.

The Role of Cultural Hubs in Heritage Conservation;

- **Preserving Historical Narratives**

Cultural Centers in Heritage Buildings are Monuments to History in Their Own Right. Repurposing industrial sites like CMC Loading Deck preserves their historical importance and contextualizes their significance for contemporary audiences (Smith, 2006). Industrial Heritage Sites serve as spaces for narratives and learning. This ensures the industrial past of the country is not lost.

- **Encouraging Community Participation**

Cultural hubs encourage inclusivity through spaces for varied cultural expressions and community-operated initiatives. They are gathering places for local people, giving them a sense of ownership and pride in their heritage. Timothy and Boyd (2003) claim participatory cultural activities for the enhancement of community cohesion and attachment to historical sites.

- **Stimulating Economic Activity**

Cultural hubs enhance local economies by attracting visitors and hosting events. Generating income through local shops, cafés, artisan markets, and other retail establishments can provide opportunities for local commerce and creativity. With due diligence and the will of the entity to invest, the CMC Loading Deck could be turned into a cultural hub that will create jobs to take tourists away to Lefke.

Several example cases of adaptive reuse projects that have become cultural hub:

- **Santralistanbul, Türkiye**

Santralistanbul is a power plant repurposed as an arts and cultural venue. It has a decidedly industrial character despite containing a variety of museums and exhibition and educational spaces. According to Lindgren (2013), Santralistanbul shows how different contemporary cultural functions can adapt in a historic fabric.

- **The High Line, located in New York City**

Originally an elevated railroad, the High Line was converted into a park and public space. Every year, millions of people visit this urban park due to its unique charm. The project showcases how industrial heritage can potentially support cultural and recreational activities (Jones & Holden, 2008).

- **Zollverein Coal Mine Complex within Germany**

The Zollverein Coal Mine Complex is a UNESCO World Heritage Site. It has been revamped into a center for culture, museums, art, and stage shows. According to the site inscription (UNESCO, 2003), it serves as a model for the integration of industrial heritage with cultural and educational activities.

In conclusion, cultural hubs will aid heritage conservation. They are a sustainable way of conserving and adapting industrial sites for contemporary use. By revising the CMC Loading Deck to a culture hub Lefke can embrace its industrial as well as ancient identity and boost creativity economy and community. This effort could help turn Lefke into an innovative and adaptive reuse model for this region.

5.4.1 Objectives of the Program – Zones & Components

The architectural program aims to ensure the preservation of the CMC Loading Deck's industrial and historic character while accommodating a new use. Spaces that support cultural and educational activities that reflect the Lefke's heritage Design for Inclusivity and Flexibility to Encourage Community Engagement. Make the site greener and more valuable. Create synergies with the nearby ancient city Soli, enriching the region's heritage narrative.



Figure 18: 3D Graphic of Proposed Zones and Suggested Areas. (Diagramming by Author, 2024)

The CMC Loading Deck has industrial heritage importance dating to from 20th century copper mines Lefke, Northern Cyprus. This adaptive reuse project transforms the unused loading infrastructure into a vibrant cultural, educational and community centre. This centre captures and maintains the industrial history of the site and the ancient legacy of Soli. The complete program creates a unique place which connects phases in time while serving the current community and sustainable tourism development.

The program is divided into 5 key zones, which are geared towards specific cultural, social and operational enjeux (figure 19):

- A. Heritage Preservation Zone
- B. Cultural and Community Engagement Zone
- C. Recreational and Green Zone
- D. Economic and Tourism Zone
- E. Sustainability and Support Zone



Figure 19: Graphic of Proposed Zones and Suggested Areas. (Diagraming by Author, 2024)

A. Heritage Preservation Zone

“The cultural and educational heart of the development”

This zone serves as the primary interpretive center, where visitors encounter the layered history of the region through carefully curated exhibitions and interactive experiences. The design philosophy emphasizes the authentic preservation of industrial character while creating sophisticated spaces for cultural programming and education.

1. Industrial Heritage Museum

Conceptual Framework: The Industrial Heritage Museum is housed within the largest surviving elements of the original loading facility. The dramatic effect of massive concrete floors, steel framework and remnants of large industrial machinery is used as content and architecture. The story of copper mining from the geological formation to the corporate operation and to the environmental restoration is being told by the museum of CMC. Through the CMC site, the CMC Museum aims to position the site in the context of industrial development in the Mediterranean.



Figure 20: View of The CMC Mine Loading Deck From The South, Showing Proposed Industrial Heritage Museum Area. (Photo by Author, 2024)

Spatial Organization and Design: The museum uses its vertical infrastructure in the loading deck to form a dynamic circulation path for visitors of approximately 800 square meters across multiple levels. At the heart of the loading bay, the central exhibition hall not only imports but also interprets the original conveyor systems and structural elements. New steel staircases that respect the industrial aesthetic will lead to mezzanine levels housing thematic exhibitions on mining technology, worker's life and environment impact.

Exhibition Content and Narrative: The permanent collection features a range of items, including restored mining equipment, geological specimens demonstrating the presence of copper on the island, photographs showing the day-to-day tasks, family items, and business records indicating the economic impact. Visitors can simulate the mine, ore processing, and the network that transported copper to the global market, from Lefke to various parts of the world.



Figure 21: View of The CMC Mine Loading Deck From The South, Showing Old Mine Loading Equipment. (Photo by Author, 2024)

Technical Infrastructure: Climate control systems are embedding so as to protect artifacts while maintaining an ambience of raw industrial. The LED lighting systems can highlight exhibits and architectural features. Features include programmable

controls that allow for different scenes to be created during events. Security systems consist of discrete cameras and motion sensors. Fire suppression uses clean agent systems that are suitable for heritage buildings. Display cases are bespoke to suit the industrial aesthetic while providing museum-quality protection.

Educational Programming: The museum is a primary educational resource for schools, colleges, and research bodies in the region. Learning spaces offer the opportunity for group work and workshops with geological materials and multimedia. The collections of the museum are available for research purposes to academic institutions, and it is currently involved in archaeological documentation and industrial heritage documentation projects.



Figure 22: View of The CMC Mine Loading Deck From The Northwest, Showing Proposed Industrial Heritage Museum Area. (Photo by Author, 2024)

2. Ancient Heritage Gallery:

Historical Context and Significance: The Ancient Heritage Gallery communicates resulting in a dialogue between the industrial site of CMC and the nearby ancient city Soli which flourished from the 7th century BC to the Roman period. Here's an easy rewrite of the underlined portion: This part of the world has been occupied by humans

for thousands of years. Moreover, these people used the land's resources for a long time. Therefore, this site will show just that. The location of the gallery shows that copper mining for industry is only the latest chapter in 1000s of year of metal-making.



Figure 23: View of The CMC Mine Loading Deck From The Northwest, Showing Proposed Ancient Heritage Gallery Area. (Photo by Author, 2024)

Spatial Design and Atmosphere: Situated in carefully restored parts of the administrative building of the loading facility, the gallery is a contrast between the industrial museum and intimate contemplative spaces. The existing concrete floors are polished and sealed to produce upscale surfaces suitable for antiquities while exposed ceiling beams and factory windows retain relation to the site's mining past. Natural lighting is kept in check by means of UV-filtering glazing, with the addition of fibre-optic illumination systems that protect archaeological materials.

Collection and Interpretation: The gallery includes excellent replicas of the famous mosaics from Soli. The replicas which had been made using photogrammetry and traditional craft are safe from damaging the original objects in far-away museums. A

rich collection of archaeological artifacts on loan from the Department of Antiquities such as pottery, coins, jewelry and tools illustrate daily life at Soli. Technology that reconstructs the digital aspect of the city will take visitors back in virtual reality to a time when the city was at its peak. Archaeological timeline presentation that allows visitors to connect the dots between ancient copper working and modern industrial methods.



Figure 24: View of Proposed Open Gallery Areas. (Photo by Author, 2024)

Educational and Research Functions: The gallery is a satellite facility for ongoing excavation works at Soli and provides workspace for visiting scholars and a storage facility for research materials. There are archaeology workshops for students, local artisans demonstrating traditional crafts and international seminars by academic scholars. This space provides rotating displays that highlight some element of ancient life, seasonal festivals and initiatives with archaeological agencies in the Mediterranean.

Community and Cultural Integration: Throughout the year, local school groups visit for archaeology education programs and community fairs have ancient crafts and food. The gallery has links to Cypriot diaspora communities, providing a cultural reference point for visitors to re-connect with roots. Contemporary works that draw on older influences are made using traditional pottery, weaving, and metalworking techniques learnt through artisan programs.

- **Interactive Displays and Screening Room**

Multimedia Integration Philosophy: The Interactive Displays and Screening Room complex is the technological heart of the heritage interpretation program, employing digital technologies to make the historical content more accessible, interactive, and memorable for different audiences. The industrial heritage setting has guided the design philosophy that the technology and multimedia incorporation should blend in with the existing environment, rather than compete with it.

Screening Room Design and Programming: The 80-seat screening room was built in a former equipment maintenance bay. Its overhead cranes have been kept and now hang over the new seating as sculptural elements. The venue comes with various projection and audio systems that can handle anything from a regular documentary to virtual reality presentation. Videos made especially for the project include the oral histories of former miners, aerial documentation of a site remediation, and an artist interpretation of the changing landscape.

Interactive Display Technology: Interactive displays throughout the heritage zone are activated by touch screens, augmented reality applications, and motion sensor activation. Tablet gadgets help visitors to access multilingual content in Arabic, Turkish, Greek, and English languages. Augmented reality apps let smartphone users discover the historical image or information hidden in the structure and landscapes.

Digital Archive and Documentation: This site keeps a full digital archive of historic photographs, documents, oral histories, and regular documentation of the site's evolution. This archive helps researchers, educators, and community members. In doing so, it contributes to wider efforts to document industrial heritage across the Mediterranean. Community members are generously contributing personal photographs, stories, and artifacts that progressively grow.

Technical Infrastructure and Sustainability: All the multimedia systems run on renewable energy generated onsite. They also have battery backups for operation during power fluctuations. We prioritize the energy efficiency and lifespan of the equipment we choose. Maintenance contracts are also included. The technical infrastructure enables live streaming of events and education programs, benefiting not only the facility but also partner organizations globally.

B. Cultural and Community Engagement Zone

“Active programming spaces fostering social cohesion and cultural expression”

This zone transforms the CMC site into a living cultural center where community activities, artistic expression, and social gatherings breathe new life into the industrial infrastructure. The programming emphasizes inclusivity, accessibility, and authentic community ownership while creating attractive venues for visitors and cultural tourism.

1. Open-Air Amphitheater :

“A venue for performances, lectures, and community events, inspired by Soli's ancient theater.”

Design Concept and Historical References: The Open-Air Amphitheater is located in a depression created as a result of mining activities. It is a scar that has been turned to tribute the industrial sector and now hosts a variety of plant and cultural festivals.

The design recalls the ancient theater at Soli providing conceptual continuity between past and present cultural life, while also utilizing the terrain of the site. The amphitheater's orientation takes advantage of prevailing winds and the sunset across the Mediterranean, resulting in natural comfort for evening performances.



Figure 25: View of CMC Mine Loading Deck From East, Showing Proposed Open Air Amphitheater Area. (Photo by Author, 2024)

Construction and Materials: Seating areas use locally quarried limestone in terraced sections to follow the slope of the land. The seating areas sit on concrete footings from demolished mining structures. The performance platform in the stage area is made of weathering steel. This material will develop a protective patina over the years, enhancing the industrial flavour. Plus, it doesn't need much maintenance. Permanent infrastructure includes underground electrical and water services while removable weather protection enables all-year programming.

Acoustic Design and Technical Systems: The arrangement of seats and reflective surfaces is so striking that it enhances the natural acoustics of the place. Sound reinforcement systems are suited for performance types from acoustic music to theatre.

Lighting systems have been designed for performance as well as ambient lighting for evening events. Control in a technical booth embedded in the hill.

Programming and Community Use: At the amphitheater, one can find a programming of traditional Cypriot music performances, modern concerts and theatrical productions, followed by community meetings, educational lectures, seasonal festivals and many more. Schools in the locality hold their graduation ceremonies and student performances at this venue. International cultural exchange programs also bring visiting artists and performers. The program calendar balances community and tourist attraction providing a community space that meets local requirements and touristic expectations.

Operational Considerations: Canopies that can be removed offer rain protection and shade during the summer events. The permanent facilities consist of a ticket booth, concession areas, restrooms, and portable equipment storage. The System of Security will make it safe for people to use in the evening. The use of long-lasting materials and simple details reduces maintenance needs.

2. Community Hub:

“Flexible spaces for workshops, meetings, and social activities, fostering community participation.”

Functional Programming and Flexibility: The Community Hub, previously used as mining admin offices, has been refurbished to give the community spaces with various options that can be adapted for any purpose as per day and season. The design achieves maximum flexibility through moveable dividers, re-configurable furniture and adaptable technical systems. The spaces are designed to host meetings, educational workshops, social services, cultural activities, and informal gatherings. They are the social heart of the building.



Figure 26: Panoramic View, Showing Proposed Community Hub Area. (Photo by Author, 2024)

Spatial Organization and Design: The hub's connected spaces total 400 square meters. These include a main multipurpose room for 100, smaller meeting rooms for 15-20 each, a community kitchen, storage rooms and children's spaces. The original industrial windows bring in a lot of light while the new interior partitions ensure an intimate space in a large industrial volume. In the common areas, a polished concrete finish is used, while a resilient surface is used in the activity areas.

Community Kitchen and Food Programming: The community kitchen is used to provide cooking lessons of traditional Cypriot food. It also provides catering for community activities as well as social enterprises for local start-ups. A professional setup enables larger-scale meal preparations, while remaining domestic for small workshops. The kitchen opens to outdoor dining spaces and serves the larger food service operations of the establishment.

Technology and Communication Infrastructure: Instruments of construction, excavating, hauling, lifting, and various others combine together to fall under this industry. Audio-visual systems are for presentations, video conferencing, and e-learning. Bring your own device programming is supported by charging stations and the availability of device storage. Public computers also allow community members without a personal device to access the technology.

Social Services and Community Support: The hub coordinates with social service agencies in the area to provide a venue for health screenings, employment services,

language classes, and civic engagement. Dedicated quiet spaces support individual study, counselling and administration. To help people in their community access resources and opportunities, the facility stays connected with local service providers and government agencies.

Youth and Senior Programming: Dedicated programming refers to the effort made to address a particular need of different age groups which includes youth focused after school programs, social activities for seniors, intergenerational activities which link the elderly with younger ones in the community to overcome generations differences and gap and workshops which deal with digital literacy, financial planning, and health education, etc. Flexible scheduling allows different user groups to have access to appropriate programming.



Figure 27: View of The Optional Area For Community Hub (Photo by Author, 2024)

3. Event Plaza:

“A versatile outdoor area for festivals, markets, and temporary exhibitions.”

Design and Infrastructure: Located in the old loading yard, the Event Plaza will be built on existing concrete and urban infrastructure to create a flexible outdoor space to host large community events, seasonal festivals, temporary markets and cultural activities. The paved area of 2,000 square meters with integrated services and permanent infrastructure for stage design and adaptable space for traders, preserving vital components of the industry as a sculptural element.



Figure 28: View of The Proposed Event Plaza Area. (Photo by Author, 2024)

Utilities and Technical Support: The plaza supply power through underground wires. Vendors stalls, food trucks, and pop-up stages will accessu the power through pop-ups. This water service will help with food vendors, cleaning operations and emergency services. Permanent lighting systems provide functional lighting and a festive atmosphere. The controllability of the lights is programmable for various

events. Sound system infrastructure are permanent speakers and mixing capability for big events.

Vendor and Market Support: An investment in permanent infrastructure for vendor stalls, storage, and waste management for routine farmers markets, craft fairs and seasonal festivities would be a worthwhile option. Local businesses can have inexpensive vending opportunities, visitors can see original local products and traditional foods. Market programming includes seasonal crops, traditional crafts, and tasty foods of the region.

Festival and Celebration Programming: The plaza area is majorly used for the annual harvest festival, cultural heritage festival, music festival and holiday celebration period. Moreover, this serves the purpose of bringing the community together and attracting tourists. The programming schedules co-ordinates with the regional tourist promotion institutions and the cultural institutions to prepare signature events that will position the CMC site a cultural destination.

Flexibility and Adaptation: The design of the plaza can accommodate a variety of events ranging from small meetings to festivals with thousands of visitors. Temporary stages, vendor booths, seating areas, weather protection is removable infrastructure. Event equipment often installed in storage facilities to preserve the open character necessary for large functions. Emergency access routes maintain compliance of large events for public safety.

C. Recreational and Green Zone

“Environmental integration and passive recreation spaces”

The areas once marked by industrial activity exhibits the potential to develop its biodiversity along with recreational zones and stunning landscape that honour nature

and culture. The design philosophy involves low-impact interventions that enhance the site's dramatic topography and existing vegetation instead of competing with them.

1. Heritage Park:

“Landscaped areas featuring remnants of industrial infrastructure and interpretive walkways.”

Landscape Design Philosophy: Heritage Park turns disturbed mining areas into recreational interpretive spaces, which gives recognition to the industrial archaeology of the site and supports native ecology. The design takes the remnants of industry and treats them as a contemporary ruin to create a romantic landscape with imaginative discoveries. Native Mediterranean vegetation colonises abandoned infrastructural elements such as buildings, creating habitat corridors and other evidence of natural succession processes.



Figure 29: View of The Proposed Heritage Park Area. (Photo by Author, 2024)

Industrial Archaeology Interpretation: The preserved mining machinery such as conveyor systems, ore cars and processing machinery are incorporated into the pedestrian circulation as sculptural interpretations. Informational signage describes original functions; artistic lighting provides dramatic experiences in the evening. Pathways use original railway grades and access roads while connecting to a functional industrial landscape, also safe for pedestrians.

Native Plant Communities and Restoration: Coastal Cyprus plant selection involves local species, endemics and traditional agricultural varieties. A series of restoration sites show the progression from disturbed mining soils, through pioneering plant communities, to mature Mediterranean woodland. These signs show how ecosystems change, how humans can use plants, and tips for dealing with climate change. Local volunteers aid with periodic planting and care.

Recreational Programming and Accessibility: Trail systems consider diverse user abilities through universal design principles and provide multiple routes for a range of difficulty and distance. Interpretive trails have self-directed options and naturalist- and historian-led guided walks. Seating implies tranquillity and allows deliberation of future directions, taking advantage of views and shade. The mountain biking and trail running routes extend to the regional recreation network.

Water Management and Sustainability: Wetlands can shape stormwater runoff and create a home for plants and animals. Retained mining ponds act both as a landscape feature and as a point for the storage of water used for irrigation in the area for establishing the plants during the dry period. Paving materials which allow infiltration and are stable under heavy loads, ensuring accessibility. Rain gardens are water catchers that display wildflowers at certain seasons.

Educational and Research Functions: The park operates as an outdoor classroom for environmental education, industrial archaeology, and landscape restoration methods. University collaboration developed ongoing research on post-industrial ecosystem development, plant community succession and the cultural landscape. A demonstration area where sustainable landscaping methods more suited to the Mediterranean climate and former industrial soils can be seen.



Figure 30: View of The Optional Area of Heritage Park Area. (Photo by Author, 2024)

2. Coastal Walkway (2 km):

“A scenic pedestrian path connecting the CMC site with Soli, promoting eco-tourism.”

Route Planning and Cultural Landscape Integration: The Coastal Walkway will enable the pedestrian connection between the CMC industrial site and the historic city of Soli following the old transport routes which link the mining area to the shipping. The trail runs through different kinds of terrains - industrial archaeology, farming terraces, wetlands on the coast, archaeological sites, which recreate a picture of the area's cultural landscape evolution.

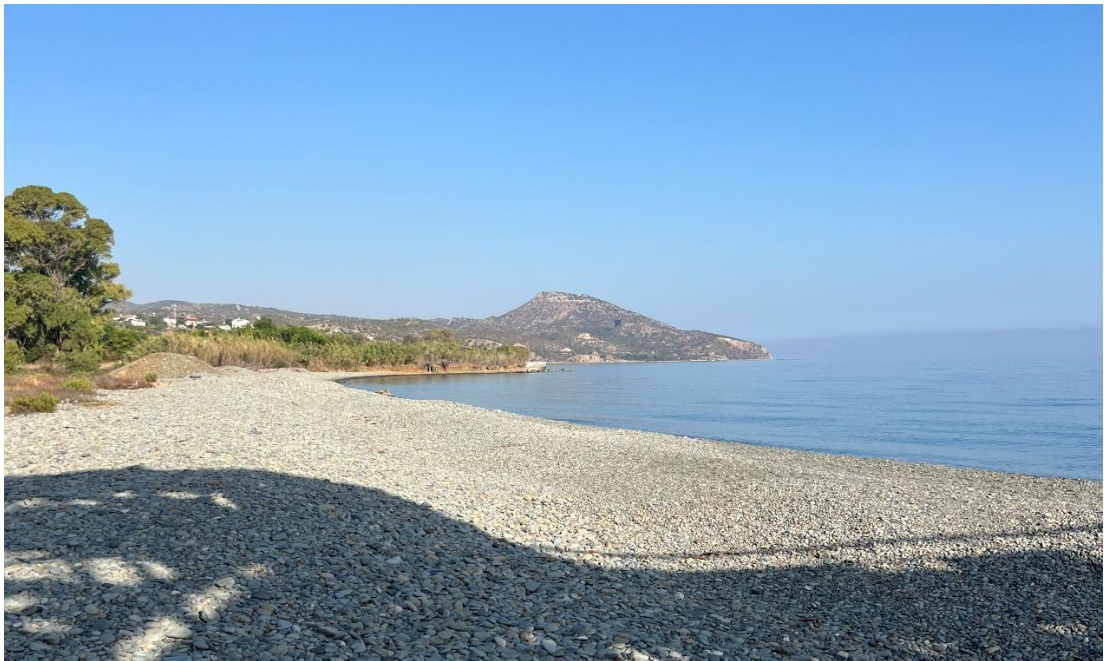


Figure 31: View of The Proposed Coastal Walkway Area. (Photo by Author, 2024)

Design Standards and Construction: The construction of walkways involves the use of permeable materials that include compacted gravel, permeable pavers and boardwalk sections through sensitive areas. The spacing allows pedestrians and bicycles to travel through, while not losing its intimate scale. The scale is appropriate to create a contemplative experience. Standards of universal accessibility establish that the route must serve everyone in terms of ability. Further, resting areas, seating and other transportation options must be available at regular intervals on the route as well.

Interpretive Infrastructure and Wayfinding: Signage in multiple languages explaining the historic, archaeological and ecological features visible from the path can be seen at interpretive stations located along the route. QR codes take you to rich content that includes historic images, archaeological reconstructions, and audio material. Wayfinding systems use both signs and mobile phone applications, which can be used without connection facilitating access.

Environmental Restoration and Habitat Creation: The walkway corridor is a linear park that connects fragmented habitats. Also, it allows for the establishment of native plants. It will facilitate the movement of wildlife. Plantings that benefit migratory birds, pollinating insects, and small mammals include those that provide food and shelter. The use of wildlife-friendly bridge designs at stream crossings helps maintain hydraulic connectivity.

Cultural Tourism and Economic Development: The walkway forms a tourism circuit linking several heritage sites, resulting in longer stays and higher local expenditure. Local guides provide jobs and help tell a authentic story. Local entrepreneurs can harness the additional economic opportunities of refreshment facilities and rest stops. Merging marketing and regional tourism promotion will create the walkway signature destination experience.

Community Use and Recreation: People living in the area walk on the path every day to exercise, walk their dogs, spend time with families, and to go from Lefke to the beach. Cultural tours, organized walks, running events, and nature interpretation programs are programmed. As members of the community share their views, work priorities as well as future programming will be developed. The Boardwalk is for the local community but will also attract visitors.



Figure 32: View of The Optional Walkway Through The Soli to Coastline. (Photo by Author, 2024)

D. Economic and Tourism Zone

“Sustainable enterprise supporting local economic development”

This zone integrates appropriate commercial activities that generate revenue for site operations while providing authentic experiences for visitors and supporting local entrepreneurs. The programming emphasizes quality over quantity, ensuring commercial activities enhance rather than detract from the cultural and heritage values that define the site's primary mission.

1. Artisan Market:

"A space for local vendors to sell crafts, and other traditional goods."

Concept and Cultural Authenticity: The Artisan Market guarantees dedicated retail space for local craftspeople as well as agricultural and cultural entrepreneurs which sell genuine products reflecting a regional theme and contemporary creativity. The market concept favours local ownership and traditional production with quality and presentation standards in line with the cultural tourism market. A vendor selection procedure that highlights multigenerational craft tradition and sustainable production methods with cultural significance.



Figure 33: Panoramic View of Proposed Artisan Market Area. (Photo by Author, 2024)

Physical Design and Infrastructure: Utilizing the old mining workshops, the distinctive architectural features of the market include the original overhead cranes. "The custom-designed displays of individual vendor stalls match the site's industrial character while creating professional retail environments." Original industrial windows provide natural light supplemented with LED accent lighting that highlights products and architecture. With climate control, shoppers enjoy comfortable shopping in an industrial setting.

Product Categories and Local Specialties: Local artisans demonstrate traditional crafts like pottery, weaving, metalworking, and woodworking in a workspace at the retail display. Visitors are offered items that are seasonal and made from traditional varieties of agricultural products. These represent the region’s food traditions and terroir. Modern crafts use reclaimed materials from the mine to create unique souvenirs, linking them to the site’s history.



Figure 34: Interior View of Proposed Artisan Market Area. (Photo by Author, 2024)

Educational and Demonstration Programming: Artisans have opportunities to share knowledge and experiences. This allows the visitors really to see the real people behind the craft. The workshops encourage visitors to join in and try their hand at various activities like pottery, weaving, cooking, and more. These colourful activities provide the guests with memorable experiences and the hosts with another source of income. Educational signage details the histories, traditional uses and modern

adaptations of the crafts on show, creating impact in terms of connection and appreciate value.

Economic Model and Community Support: The rental fees for vendor stalls are affordable to local entrepreneurs while providing enough revenue to maintain and program the facility. Business development assistance—including marketing and financial planning and co-op purchasing—enables vendors to be successful while staying true. Seasonal vendor programs help producers during harvest time and support special events and festivals.

Quality Control and Visitor Experience: Curation of product helps you maintain a high quality and an assortment of products according to the visitor's interest and budget. Display Standards Improve Store Layouts and Preserves Authenticity. Product details and payment systems in various languages cater to foreign visitors and vendors who don't speak English. Training helps vendors improve visitor interactions and generate sales.



Figure 35: View of The Optional Art & Craft Market Area. (Photo by Author, 2024)

2. Dining Area:

“A combination of indoor and outdoor spaces offering authentic Cypriot cuisine, supporting local agriculture.”

Culinary Philosophy and Local Cuisine: The dining facilities serve authentic Cypriot cuisine with local ingredients prepared in the traditional manner, creating lasting impressions that highlight the local food culture and agricultural wealth. The food menu focuses on what’s in season, traditional dishes and uncommon and modern interpretations that don’t go off any culture.” Partnerships with local growers provide fresh produce while supporting them.



Figure 36: View of The Proposed Cultural Restaurant & Café Area. (Photo by Author, 2024)

Facility Design and Atmospheric Integration: The indoor dining spaces occupy the former mining administration buildings, all original characteristics were maintained and improved through thoughtful remodelling. Both the Mediterranean climate as well as the spectacular views are important in influencing the outdoor dining terraces. Furthermore, it can also enable flexible capacity for various levels of demand. The kitchen facilities are designed to professional food service standards but allow visual connection to the heritage environment through open cooking spaces and a display of traditional equipment.

Menu Development and Seasonal Programming: Signature dishes showcase local specialties such as seafood, meat, seasonal vegetables and ancient grains. Local wines, historical drinks and modern interpretations with local ingredients are present in beverage programs. Modifications in menus at an off-premise establishment are made based on seasonal agricultural schemes elements of traditional festivals as well as periodicity to motivate learning through repeated visits at activity programmes and familiarisation with local produce.

Local Sourcing and Agricultural Partnerships: Strong ties to local farmers, fishermen, and food producers guarantee ingredient quality and regional economic development. Herbs and vegetable gardens on-site show traditional agricultural techniques and give fresh produce. Programs which reduce food waste such as composting and donating food to community organizations often reflect the organization's sustainability commitments and can save the organization money over time.

Service Models and Accessibility: Multiple service tiers can fulfil all the needs of the visitors. It can accommodate even the biggest budgets. The strategies and services for families facilitate access with children, whilst the dietary adaptation is carried out

according to nutrition and/or culture. Reservation systems help to manage capacity; walk-ins help to preserve the spontaneity of dining.

Economic Integration and Employment: Hiring from the Local area provides Job Opportunities for members of the community while ensuring Genuine Service and Cultural Knowledge. Hospitality skills training programs help preserve age-old recipes and indigenous knowledge systems. Local producers and suppliers may benefit from revenue sharing for more robust local impacts.

3. Central Café:

“A casual dining and social space, integrated into the heritage environment.”

Location and Design Integration: The Central Café is strategically positioned to provide access from all facility areas, functioning as a practical refreshment stop and informal inside-outside meeting space for both visitors and the community. The design combines with preserved industrial architecture and creates environments that are warm and welcoming, fitting for long conversations and rest. The original structure of exposed beams, concrete surfaces and industrial windows give the lot an unmistakable character, while the furniture and equipment are modern and comfortable.

Service Concept and Operating Hours: The café is open for the duration of the facility, meaning that people can always get refreshments, light meals, and a social space, no matter what is happening when. Service concepts find a balance between efficient delivery and personal attention. For instance, counters are available for fast transactions (such as ordering pizza). In contrast, table service is available for a leisurely experience (as in restaurants). During summer months, extended evening hours can add revenue while providing social opportunities for the community.

Menu and Local Specialties: Beverage programs showcase local coffee heritage, traditional teas, freshly squeezed juices of seasonal fruits, as well as signature drinks

using local ingredients and cultural practices. Light meal options encompass most probably a regional sandwich, seasonal soup, and pastries along with health options. Items unique and signature to the facility, create memorable experiences that drive repeat visitation.

Social Function and Community Integration: Different users can use the flexible seating, for instance, personal visitors for quiet contemplation and large families or business meeting. The cafe is used by the community in a way that creates a genuine local feel for visitors. The space is stimulated beyond just food service (such as during times of the day) with music and book performances, game nights and other activities.

Operational Efficiency and Sustainability: Users of food and beverage machines prefer energy efficient machines that are reliable and simple to maintain. By sourcing baked goods, dairy items and specialty items locally you will be helping region producers and get freshness and real flavours. Using service ware that can be used again, implementing composting programs, and controlling portions are examples of waste reduction strategies that minimize environmental costs.

E. Sustainability and Support Zone

“Environmental responsibility and operational excellence”

This zone ensures the entire facility operates as a model of environmental sustainability while providing necessary infrastructure and support services that maintain high standards of visitor experience and community service. The comprehensive approach addresses energy, water, waste, and operational sustainability through integrated systems that demonstrate best practices while controlling long-term operational costs.

1. Energy Systems

“Solar panels and wind turbines to provide renewable energy for the site’s operations.”

Renewable Energy Integration and Grid Independence: The energy system includes various renewable energy sources which provide energy autonomy. It also showcases appropriate sustainable technology applications for heritage environments. Installations of solar photovoltaic, which makes use of rooftops of buildings and designed canopy structures for protection against the weather to produce electricity. Small wind turbines in the right position to harness prevailing coastal winds supplement solar generation and provide signature visual cues that indicate the facility’s green credentials.

Solar Installation Design and Integration: New construction or extension elements, rather than historic structures, will be fixed with photovoltaic panels in a heritage character area. Solar arrays that are ground-mounted can take advantage of disturbed mining areas that will not work for other activities. These systems create productive landscapes out of post-industrial areas. Visitor education aspects encompass real-time energy production indicators and guided tours that highlight the renewable technologies and environmental benefits.

Energy Storage and Distribution Systems: Battery storage systems ensure reliable power supply during periods of low renewable generation while providing emergency backup during grid outages. Through the smart grid technology, energy management in the whole facility will optimize energy consumption and shift non-essential loads to peak renewable generation periods. Electric vehicle charging stations encourage sustainable transportation while also creating new revenue earning opportunities and showcasing integrated sustainability approaches.

Energy Efficiency and Conservation Measures: Upgrades to the construction of a structure, such as insulation, efficient glazing, and natural ventilation systems, reduce consumption and maintain comfort levels appropriate for the Mediterranean climate. The full factory is well lit with LED lamps, lowering the energy consumption and maintenance needs. Building energy management systems control the operational use of energy consuming equipment in the building.

Educational and Demonstration Value: Displays of energy contain engaging experiences that let the public see renewable energy in action, creating awareness and understanding. Interpretive signage explains why technology was chosen, the environmental benefits of sustainable technology, and the economic benefits of sustainable management (cost and benefit). The educational programming involves workshops on renewable energy, home efficiency improvements and sustainable lifestyle choices. This zone will ensure the environmental and operational sustainability of the site.

2. Waste Management Hub

“Facilities for recycling and composting, promoting sustainable practices.”

Comprehensive Waste Reduction Strategy: The waste management system focuses on preventing waste via design choices, operational practices and educating visitors on minimise waste generation and by showing sustainable alternatives for conventional disposal. Strategies for source reduction include service ware that can be reused, bulk order purchasing to limit packaging, digital communication to decrease paper, and durable design choices that increase the longevity of materials.

Recycling Infrastructure and Community Service: Facilities can select a custom recycling system that includes all waste streams generated on-site along with community recycling services for maximum environmental benefit. These categories

include paper, cardboard, plastic, glass, metals, electronics, and hazardous materials, and we have the infrastructure for appropriate collection, sorting, and processing. An educational component is offered to the community to learn how to recycle.

Composting Systems and Closed-Loop Resource Management: Using an on-site composting system would take the organic waste from food service operations, landscaping maintenance, and the local community to create an excellent soil amendment that is then used to enhance landscaping maintenance. Furthermore, this organic waste would be adding to community garden programs. Demonstration composting areas demonstrate home composting techniques to visitors and community members, while emphasizing the connection between waste reduction and soil health. Finished compost helps with landscaping on the site, while excess production supports community gardening efforts.

Hazardous Material Management: Proper handling and disposal systems for various hazardous materials such as cleaning chemicals, maintenance fluids, electronic waste and batteries demonstrate environmentally sound practices and responsible facility management. By partnering with licensed disposal contractors and providing educational materials, waste disposal ensures the appropriate handling of hazardous waste, and teaches people about alternatives and appropriate disposal methods.

Waste Reduction Education and Community Engagement: Educational programming workshops include waste reduction, home composting, recycling enhancement and sustainable purchasing decisions that allow members of the community to take environmental benefits home. The demonstration areas demonstrate how to reduce waste, alternate different materials, and live more

sustainably. Projects encouraging the public to partake in conservation efforts such as volunteering, a school trip, or collaborating with environmental organizations.

3. Administrative Offices

“Spaces for site management and operational staff.”

Facility Management and Coordination Functions: Administrative offices house the professional staff responsible for facility operation, programming coordination, maintenance management and visitor services. The structure of the organization includes executive management, operations, maintenance, education and community programming. The office design balances professional workspace requirements with the heritage character and public access.



Figure 37: View of The Proposed Administrative Offices Area. (Photo by Author, 2024)

Visitor Services and Information Management: Visitor services include operating the information desk, booking educational programs, coordinating group tours, scheduling events and gathering feedback. The ability of staff members to speak more than one language makes sure that visitors who speak all these different languages can

access the services. In addition, having a local labour force shows that they support the community and do not require foreign workers. Also, the presence of the local workforce ensures that they have the knowledge of local culture and forms a great cultural connection. Technological systems help in managing reservations, monitoring visitors and communication with partners.

Financial Management and Revenue Optimization: They include tracking revenue, controlling expenses, budgeting, applying for grants, and building partnerships to sustain the facility in the long run. Revenue diversification strategies possibly include admission fees, retail sales, food service, facility rental, educational programming, and special events create several streams of revenue within mission.

Community Relations and Partnership Development: Community engagement activities include partnerships with local organizations, volunteer coordination, cultural programming development, and ongoing communication with stakeholders to keep the facility responsive to community needs and interests. The regional partnership development forms collaborative relationships with tourism organization, educational institution, cultural organization, and government agencies to enhance the quality of programmes and efficiency of operation.

Professional Development and Training: Staff training programs ensure service quality while building local capacity in heritage management, cultural tourism, environmental sustainability, and community engagement. Ongoing professional development opportunities include conference participation, continuing education, and skills training that maintain staff expertise while creating career advancement opportunities within the heritage management field.



Figure 38: View of The Proposed Administrative and Management Offices Area.
(Photo by Author, 2024)

Visitor Facilities:

“Restrooms, lockers, and bicycle racks to enhance visitor experience”.

Comprehensive Visitor Support Infrastructure: The visitor facilities tackle any practical items that will enhance the comfort, safety and accessibility over your time on site. Restroom facilities are strategically placed across the site. Their designs adhere to the heritage character while being compliant with modern-day accessibility and hygiene standards. Visitor facilities including family toilets, changing and accessibility features, ensure access for all visitor groups.



Figure 39: View of The Proposed Visitor Reception Area. (Photo by Author, 2024)

Security and Safety Systems: A strong security system ensures safety for users and visitors while maintaining the character of the site. Camera systems maintain social surveillance while protecting personal privacy in crucial places. A rapid response capability is ensured for emergency communications while interpretive lighting provides illumination for evening activities. The siting of first aid stations and equipment for emergency uses caters for various emergencies.

Storage and Personal Services: Secure locker facilities accommodate visitor belongings during site exploration while bicycle storage encourages sustainable transportation options. Lost and found services, package holding, and personal assistance ensure positive visitor experiences while supporting diverse visitor needs. Equipment rental including audio guides, mobility aids, and weather protection creates additional service options while generating supplementary revenue.

Information and Wayfinding Systems: Comprehensive wayfinding systems make use of physical and online systems to ensure easy navigation. Information in multiple languages caters for the varying backgrounds of a diverse visitor population. In addition, QR code technology allows visitors to access detailed information through their own devices. Real-time information systems communicate information on program schedules, weather updates and especial announcements. Emergency communication capability helps in ensuring visitor safety.

Transportation and Accessibility Integration: Parking facilities can cater for a variety of modes of transport. These include cars for residents and visitors, coaches for tourists, bicycles and pedestrians. It is also important that arrangements minimize intrusive elements in distinctive heritage landscapes. Charging stations for electric vehicles provide alternative income while supporting sustainable transportation. Site

accessibility not solely reliant on use of personal vehicle, conveniently served by public transport connections and rideshare pick-up/drop-off point.



Figure 40: View of The Optional Visitor Reception Area. (Photo by Author, 2024)

5.4.2 Design Considerations & Outcomes

According the theoretical part already mentioned in this research, there are some design principles given priority by the architectural program:

1. Minimal Intervention Philosophy - Detailed explanation of preserving industrial character, material conservation, architectural integration with reversibility, documentation requirements, and adaptive functionality within historic framework.
2. Sustainability Integration - Environmental responsibility, renewable energy systems, water conservation, waste reduction, green building standards, and demonstration value for visitors.
3. Universal Accessibility and Inclusive Design - Physical accessibility, sensory accessibility, cognitive accessibility, economic accessibility, and cultural/linguistic accessibility.

4. Cultural Integration and Community Identity - Local identity expression, intergenerational knowledge transfer, community ownership, regional cultural connections, and contemporary cultural expression.

The architectural program can achieve:

1. Cultural and Heritage Impact - Enhanced cultural awareness, tourism development, preservation of intangible heritage, international partnerships, and community identity strengthening.
2. Economic Development and Tourism Impact - Direct employment creation (25-30 jobs), indirect economic benefits, tourism revenue generation, small business development, and regional infrastructure improvements.
3. Community Development and Social Impact - Educational opportunities, community services integration, social cohesion, cultural diversity celebration, and health/wellness programming.
4. Environmental and Sustainability Impact - Environmental remediation, renewable energy demonstration, waste reduction, sustainable tourism practices, and climate adaptation.

Chapter 6

CONCLUSION

At the possible narratives and conclusion out of this research, points that the use of industrial heritage can be valuable for retaining identity and sustainable development of the region and its community. In this thesis, the relationship between culture and heritage was discussed within the context of community identity. As part of the work done, Cyprus Mines Corporation (CMC) Mine Loading Deck in Lefke was taken as the case study. The study shows that reusing industrial heritage can be a solution for abandonment, neglect and costly upkeep, giving cultural relevance to a place with new activities and bringing people back to it. It is indicated that industrial heritage can be a warehouse of community identity and a storehouse of past memories. It is crucial that people recognise the significance of heritage sites. These places can contribute to the ongoing development and expansion of their respective locality. Furthermore, it highlights how people can preserve their culture through these sights. The exploration of has validated the findings of the study.

- The tangible and intangible heritage shaping identity of the community was looked into under the industrial heritage, while testing the hypothesis and strengthening data available.
- An in-depth study of the successful adaptive reuse of building projects has provided evidence of best practices and success factors to combine historical conservation and contemporary use.

- The CMC Loading Deck and Soli Connection: The industrial character of the CMC site and the ancient character of Soli created a dual layered narrative that could enhance the cultural and touristic value of the area.

This research adds to the long list on industrial heritage and uses, especially. Key contributions include:

1. The proposed design integrates through industrial heritage and ancient heritage within their physical contexts and narrative, bringing together different momentary layers with Lefke's history.
2. The recommendation promotes the global principles of the environment such as reuse of material, energy-efficient system and sustainable tourism model.
3. The study is reinforced as the adaptive reuse strategies are proposed with the addition of community engagement and participatory design which ensure social inclusivity and cultural relevance.

We can include that revitalizing Lefke through Adaptive Reuse of the CMC Loading Deck holds great potential. The project is capable of changing an unused industrial space into cultural facilities by establishing several discourses:

- Encourage the arrival of local and foreign travellers, aiding the growth of businesses and jobs.
- Serve as an educated resource which raises awareness of Lefke's industry and culture.
- Build community through shared spaces for cultural events, workshops and festivals.

This study provides a replicable model for other areas with similar industrial heritage challenges, showing how decommissioned spaces can be regenerated as assets for sustainable action.

The adaptive reuse of industrial heritage creates some essential opportunities but it also creates challenges which need to be tackled such as:

1. CMC is contaminated because of mining activities that took place there in the past. The report recommends enlisting the help of environmental experts to tackle these issues carefully.
2. It is essential to strike a balance between bringing the site to the world of today while also retaining its authenticity. The analysis leads to light-touch approaches that emphasize the industrial quality of the site.
3. The success of the project depends on stakeholder engagement and getting the locals on board. This can be accomplished through workshops, public consultations, and educational campaigns to enhance awareness on the value of industrial heritage.

The CMC Loading Deck is an example of how transforming community heritage can become a tool for sustainable development, cultural conservation, and community empowerment. As a result of construction which is based on Lefke's industrial and heritage background, a specific area of Lefke will begin to reflect social life. This research shows that adaptive reuse helps in transforming the abandoned structures and the communities.

As this research proved already, the CMC Loading Deck can be a great model of heritage if integrated with history, sustainability, and community participation.

Therefore, through the CMC Loading Deck adaptive reuse holds much potential that can be a great model of this heritage typology.

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